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SEPTEMBER, 1881.

ANOTHER SUMMER has come and passed and we have again seen the earth in "her beautiful array." We have seen "the miracle of flowers and trees," and now

"The Golden-rod is leaning
And the purple Aster waves."

While the extreme heat of the past summer brought with it in some parts violent winds and storms, which have produced disaster, destruction, and, in some instances, death, events sad and deplorable, still, under a wide range of vision these calamities are narrowly circumscribed; and viewing our country throughout its whole extent, it is perceived that the sun, the rains, and the earth have combined with the husbandman and the gardener to fill the land with plenty for man and beast-garner and cellar, loft and crib, cask and fruit-room are full, and we are assured of plenty for all within our borders, and much to spare for those who may be lacking.

Our forest and ornamental trees, and wild and cultivated flowering-plants have rejoiced us with their beauty. Foliage-plants, on account of late planting, have been late in developing, but are now in their glory. Our real spring, or the time intervening between severe frosts and the expansion of the foliage, was very short, and gave little time for transplanting trees and shrubs, and the continuance of light frosts delayed to the commencement of

summer, and even into it, the planting of tender bedding plants. In a season so unpropitious, some inexperienced amateurs have met with more or less loss in transplanting; some hardy stock was set too late, and some tender, too early. Some can now see bare, dead trees of this spring's planting that might have been saved, notwithstanding the unfavorable weather, if the pruning-knife had been properly employed. A well-grown tree from the nursery, with a symmetrical head, is a fine object, and purchasers of such stock naturally desire to see it continue its growth, but the safety of the tree demands that every shoot shall be shortened back to a few buds. Tender bedding stuff planted too early took a long time to recover from the check received by exposure to too low a temperature. and that which was held back and planted late has kept ahead of it. On the other hand, the early-sown annuals have done best.

At this time the bedding plants and most of the annuals are in their best condition. We are still enjoying the beauty of the Gladiolus and the Dahlia, and the later-blooming herbaceous perennials. By the way, how much we prized this season the spring-flowering perennials and the flowering shrubs when all else was so late coming forward. The Pansies were particularly enjoyable, and now, again,

since the heat is lessening, they are increasing in size and brightness. To keep up a good succession of Pansy plants, like Strawberries, it is necessary to make new beds almost every year; Pansy seed can now be sown that will produce plants to flower in the coming spring, and that will be quite strong next year at this time. Now, too, we may take time by the forelock by sowing seeds of Sweet William, and Aquilegia, and Chinese Pinks, and the different varieties of Lychnis and Perennial Poppy, P. orientale, and Foxglove, and Hollyhock, and other perennial plants. The ground is warm and moist, or can be easily kept so, the seeds will germinate quickly and will make little plants that, with the protection of a light covering of leaves, will securely winter over and be ready for an early start in the spring.

House plants that have been turned into the garden for the summer should at once be prepared for removal and potting, by cutting around them with a sharp spade or knife, in such a way that a ball of earth will remain attached to each one of a size suitable to be placed in the pot the plant is to occupy; it will be perceived that this operation implies some forethought, for, the size of the pots for the different plants must be determined in advance, and they must be enough larger than the balls of earth to allow a filling of fresh soil. In about ten days after cutting about the plants they will be ready for removal, and then it will be found that. as a rule, the roots where cut have healed and have made many small, fibrous roots that will enable them to quickly overcome the check of removal.

Beds for the spring-blooming bulbs must soon be put in order by manuring and digging. The Tulips and Hyacinths, and Crocus and Narcissus, and Snow Drops and many other bulbs will soon be ready for their winter quarters. Any of these bulbs intended for winter-blooming in the house may now be potted and placed away in the dark in a cellar, until they have filled the soil with their roots, when they can be brought out into the light.

In the vegetable garden we are now to make the annual sowing of Spinach; and those who have not the facilities for raising Cabbage, Cauliflower, and Lettuce very early in spring can do no better than to sow the seeds of them at this time for early spring and summer crops. A coldframe is all that is necessary, or, in the absence of that, even an enclosure with four boards, to facilitate protection in winter, in a warm spot in the garden will serve the purpose. When the severe weather comes, some boards will do for covering instead of sash, if care is used to throw them off on all mild days during winter.

Many of the preparatory operations that have here been alluded to may be deferred at the South another month, but our northern readers must be on the alert.

THE CINERARIA.

The Cineraria, so well known in our greenhouses for its gay, bright flowers in the latter part of winter and spring, is one of the most valuable flowering-plants for that season; then it is gold for the gardener, for it is adapted to many purposes. A well-grown plant is a fine object for table decoration, and in bloom the plants mass with others with the finest effect, and the cut flowers can be used for bouquets, and in various ways. The name is derived from *cineres*, ashes, in allusion to the whitish, or ashy-colored, down on the surface of the leaves, and especially on the under surface.

Cineraria cruenta is the name this plant bears, although the many varieties are, no doubt, to some extent the result of hybridizing; the difficulty, or rather, impossibility, of discriminating in this particular, leaves them all to be referred to the primitive species, cruenta, a native of the Canary Islands. This species has the underside of its leaves of a crimson, or purple, color, whence it derives its name, meaning bloody.

As seen by the plate, the markings and shades of the flowers are very various, and only a few of an almost endless variety are presented; enough, however, to convey a fair idea of their exquisite beauty, though falling far short of doing them justice.

Fortunately this plant is quickly and easily propagated by seed. In order to have plants to bloom as early as possible in winter, it is necessary to sow the seed early in spring; but, if one is not particular about that, seed-sowing may be undertaken at any other time. In sowing the

seed the soil used should be quite fine, and may be prepared by mixing one part of sand with two parts of leaf-mold and three parts of good loam, and running the mixture through a fine sieve. Fill a pot or shallow earthen pan provided with drainage, and, after dampening the soil with water from a fine rose, sow the seed on the surface; after this, sprinkle a light covering of soil over it, and press the surface evenly with a block or the bottom of a pot, to firm it and bring the seeds in close contact with the soil. A pane of glass may be placed over the pot, which should be set where the sun will not fall on it. When the plants are up they may stand exposed to a good light, but not where the sun shines directly upon them. When the little plants are full-formed, prick them out so as to stand about an inch apart, in soil such as described, though with a little less sand; when they cover the space here allowed, transplant them singly into four-inch pots in the same kind of soil. As soon as the weather will admit, they can be placed with the greatest advantage in a cold-frame facing north and be so shaded as to be protected from the sun during the warmest part of the day. Give air and water as needed, and when the pots become filled with the roots shift the plants into six-inch pots and keep them as before, until it is necessary to take them in in the fall. In the greenhouse, or in the window, it is best for them not to receive the hottest sun; if they can stand in a good light but where they will receive only the morning and evening sun, it will be best. A covering of moist sand, or of moss, should be provided for the shelves on which the pots stand. The plants will not stand forcing, and are to be brought along in a steady temperature, not much above 50° at any time. They cannot bear a dry atmosphere, and this is the most frequent cause of their failure as house-plants when the attempt is made to raise them in a close room heated by a stove or a furnace; but in an enclosed window, where both heat and moisture may be regulated, they may be grown with much satisfaction. Early plants may be brought into bloom by Christmas, and those of later sowings at successive intervals afterwards. the flower-stems begin to appear, weak manure-water may be given with advantage every other day, as it will increase

the number and size of the flowers. Cineraria is peculiarly subject to attacks of the green-fly, and carelessness or neglect in this matter may result in the injury or ruin of the plants. The usual method of destroying this insect by fumigation cannot be safely resorted to, and usually a weak solution of tobacco is kept at hand, into which the plants are dipped, top downwards, whenever it is necessary. By watchfulness in practicing this method the plants are easily kept in good condition.

VIRGINIA CREEPER.

Like enough to the vine—the Grapevine—is the Virginia Creeper to warrant the scientific name of Ampelopsis, which means, resembling a vine. The most careless observer will perceive the likeness in stem, and habit of growth, and tendril, and fruit. In leaf-form, to be

sure, it is quite different, but the skeleton arrangement of the great veins is very similar. Take it entire, it is wonderfully like a Grapevine, and the similarity is not seeming or superficial, for the plants correspond in flower and in fruit, those highest organs of plant structure; so they are really nearly related, and botanically are classified together as members of the same family or order. Ampelopsis quinquefolia is the Virginia Creeper, and the name, though long, is very expressive, for quinquefolia, or five-fingered, des- VINE UP THE TRUNK OF cribes the leaf well. the Understanding



NORWAY SPRUCE.

significance of the whole name, we perceive it to be far more expressive than the common, or familiar name. Why the plant should be called Virginia Creeper, when it grows from Florida to British America, can only be explained by reference to the early history of this country after its settlement by Europeans, when

Carolina, Virginia, Massachusetts, and Canada were the principal or great divisions, and about all the distinction of territory for a long time comprehended in Europe; and, also, to another fact, that the flora of this country was enthusiastically studied, and specimens of plants, both dried and living, were carried in great numbers to the old countries, and there assigned places, either in cabinets or in the gardens. As the colony of Virginia at one time was the most enterprising, and its commercial activity greatest, it is probable that these vines, whose beauty was early noticed, were carried in considerable numbers to England, and there the name Virginia Creeper would seem exceedingly appropriate. That this supposition of the origin of the name is well founded, it is only necessary to point to the fact that so many of our native plants received their names at that period by European botanists, and to which the names of the sections mentioned were applied distinctively, as we recognize in the often recurring specific words Canadensis, Virginiana, and Caroliniana. The reason for applying these names was, that



VINE OVER THE TOP OF NORWAY SPRUCE.

the plants to which they were given came, respectively, from the sections, not that they were their proper or peculiar localities, for their extent was not then known.

The name Woodbine, we find, is often applied to this vine, and less commonly, American Woodbine, the latter showing its foreign origin. Woodbine is a common English name that, in different parts of that country has been applied to various climbing plants, but probably more especially to the climbing Honeysuckles, and, so, was easily applied to a vine of similar habit. It is the Virginia Creeper



CREEPER COVERING BASE OF VASE.

that Lowell refers to in the following lines of his "Indian Summer Reverie:"
"The Woodbine up the Elm's straight stem aspires, Coiling it, harmless, with autumnal fires; In the Ivy's paler blaze the martyr Oak stands mute."
But the Ivy here mentioned is the Poison Ivy, Rhus Toxicondendron, which in habit of growth is very similar to Virginia Creeper, and is often mistaken for it by those unacquainted with the leaf characteristics of both plants. Poison Ivy is a simple, three-lobed leaf. In Chaucer's poem of "The Flower and the Leaf," it is understood that the "Woodbinde" is the Honeysuckle:

"And those that weare chaplets on their hede
Of fresh Woodbinde, be such as nevere were
To love untrue in word, in thought, in dede,
But aye stedfast; ne for pleasuance ne fere,
Though that they should their hertes all to tere,
Would never flit, but evir were stedfast,
Till thet their lives there asunder brast."

When we consider the range of latitude over which the Virginia Creeper grows in this country, and the extremes of temperature it bears with impunity, it becomes evident that it is quite a remarkable plant. "As hardy as an Oak," is a common expression, but how many species of the Oak, if any, have so wide a range of climate and soil as this slenderstemmed vine! It is not particular either in regard to soil or exposure, but exhibits its luxuriance everywhere. The rapidity with which it will cover a surface when once it is well rooted in a good soil is very great, but no plant better repays generous treatment when young, for, although it will take care of itself if let alone, yet, if one wants a quick growth.

some good manure will have a great effect in producing it.

The tendrils by which the plant climbs, when they touch a surface that will yield them support, expand into little flat disks at the end, and fasten themselves; the tendrils then become very strong, tough and wiry, and form a spiral coil, thus supporting the plant as if on springs, allowing it some play of movement in response



SUMMER HOUSE.

to the force of the winds; those tendrils that do not secure a fastening soon perish. The strength of the attachments is very great, and fully sufficient in most cases without artificial aid, although there is a difference in this respect with different vines. Like all other plants raised from seeds, the individuals have their peculiar characteristics, and consequently we find very considerable variations in size and shape and color of leaf and leaf-stem, also in the smoothness and roughness of their surfaces, some being bright and glossy, and reflecting a light green, while others have a dull surface, showing a heavy, dark color. The edges of the leaves are variously toothed and cut in different plants, some being much more pleasing in this respect than others. As the vines are easily propagated by layers and cuttings, any one of them having a combination of desirable qualities may be rapidly multiplied.

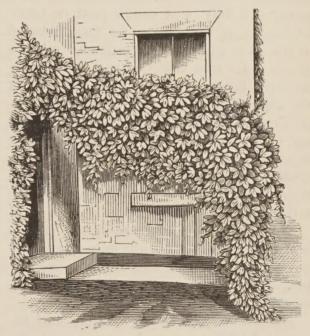
The value of this vine for ornament is appreciated in all parts of the country, but not, apparently, so generally nor to the extent that its merits entitle it. The many ways it can be employed we are only beginning to understand, and new

uses for it will be continually discovered. Usually it has been planted to cover the sides of houses and porches, and verandas, and this must continue to be its principal use. Perhaps it was this that WILLIS had in mind when he wrote

"They may talk of love in a cottage, And bowers of trellised vine."

For porches it is necessary to provide some kind of trellis, either of wood or wire, the latter being the neatest and most durable. On the side of a house it will fasten itself by its tendrils, and on unpainted brick or stone houses it may be allowed to run at its own sweet will; on old wooden houses, too, it is frequently seen taking full possession of the outer surface, but it is not desirable to let it fasten itself in this manner on good houses made of wood that are intended to be kept in good order, and wire or wooden frame-work should be erected for it. For churches it becomes a garment of grace and beauty, and some of the most elegant of these structures are clothed with it. The effect is to harmonize the building with the surrounding scenery in a manner very beautifully described by Wordsworth, referring to the effect produced by the English Ivy, but which is truly the same by the Virginia Creeper:

"Dying insensibly away
From human thoughts and purposes,
The building seems, wall, roof and tower,
To bow to some transforming power,
And blend with the surrounding trees.



VIRGINIA CREEPER FORMING AN ARCH.

The facility with which these vines climb trees, make them of value in covering dead trunks and stumps, thus transforming their ugliness into grace and beauty. Sometimes they may be allowed to take possession of trees that, though not dead, have become deformed, which they will invest with new charms. Two illustrations of this character are presented, both of them being firs; in one case the lower branches are left free while all the upper part is embraced, and in the



VINE COVERING A FENCE.

other the stem is free for a long dis ance, and is clothed by the vine like a tall pillar, while at the top it extends its branches, somewhat in imitation of a Palm. Was it the Virginia Creeper that READ refers to when, in the description of an autumn scene, he writes:

"Here the frail Maple and the faithful Firs By twisted vines are wed?"

One use the Creeper may be applied to with excellent effect, and is such as admits of a very common adoption, and that is, to clothe a base for a vase of flowers on the lawn. The base may be the stump of an old tree left in the ground, or one that has been placed there for the purpose, or it may be a rough post or piece of log set in the ground; a vine planted at the base will soon cover it and make a green pillar that will contrast beautifully with the flowers in the basket or vase at the top. The vase need be nothing expensive, as it will be covered by the vine up to its rim; a flaring box made of boards is just as good as anything more costly. It is unnecessary to give any further description, as the illustration of it tells the whole story.

For a summer-house a rough framework of any desired form may be quickly covered with vines, and is far more appropriate for the garden than any elaborately constructed, or even rustic one.

Handsome arches over walks and between buildings may be made with the vines, and thus their verdure be made conspicuous, when otherwise there would be nothing to attract the eye.

Fences and walls may be covered with

Virginia Creeper and made very handsome. Sometimes front fences are made with small posts, standing about two feet out of ground, along the top of which runs a rail, and below one or two wires are stretched, and over the whole clambers the vine, making a low wall of green.

The bases of houses may be clothed with it, using care to keep the vine in its place, and not allowing it to stretch upwards, as it will if not checked occasionally as it manifests its aspiring habit.

Balconies can be elegantly draped and festooned by the skilful training of the vine, and be made to assume some charming phases.

Numberless other uses might be mentioned for which this luxuriant vine is applicable, and not half its worthy praises have yet been said or sung.

But the crowning glory of the vine is its coloring in autumn; it is as noticeable in this respect as the more famous Maples.

"That time of year, you know, when the summer beginning to sadden,

Full-mooned and silver-misted, glides from the heart of September,

Mourned by disconsolate crickets, and itinerant grasshoppers, crying

All the still nights long, from the ripening abundance of gardens;



VINE DRAPING A BALCONY.

Then, ere the boughs of the Maples are mantled with earliest autumn,

But the wind of autumn breathes from the orchards at nightfall,

Full of viny perfume and mystical yearning and languor;

And in the noon-day woods you hear the foraging squirrels,

And the long, crashing fall of the half-eaten nut from the tree-tops;

When the robins are mute, and the yellow birds, haunting the thistles

Cheep, and twitter, and flit through the dusty lanes and the lopping;

When the pheasant booms from your stealthy foot in the cornfield,

And the wild-pigeons feed, few and shy, in the scokeberry bushes;

When the weary land lies hushed, like a seer in a vision.

And your life seems but the dream of a dream which you cannot remember—

Broken, bewildering, vague, an echo that answers to nothing!

That time of year you know."

Yes, that time of year, we know our vine, that has sheltered us from midday suns and evening dews, and that has rested our sight with its verdure, begins to take on its brilliant colors and shades, until they finally deepen into a rich crimson. How truthfully has READ portrayed it in "The Closing Scene," where death and winter are compared, and an old matron represents the closing year:

Amid all this, in this most cheerless air,
And where the Woodbine shed upon the porch
Its crimson leaves, as if the year stood there
Firing the floor with his inverted torch;

Amid all this, the center of the scene,
The white-haired matron with monotonous tread,
Plied the swift wheel, and with her joyless mien,
Sat, like a fate, and watched the flying thread."

And when the thread was spun out, the dropped head and the fallen hands showed that the matron and the old year had closed their lives together.

How suggestive with these thoughts, are the lines of Longfellow:

"O what a glory doth the world put on For him who, with a fervent heart, goes forth Under the bright and glorious sky, and looks On duties well performed, and days well spent! For him the wind, ay, and the yellow leaves, Shall have a voice, and give him eloquent teachings; He shall so hear the solemn hymn that Death Has lifted up for all, that he shall go To his long resting-place without a tear."

ONIONS FROM SEED.

Those intending to commence Onion-raising on new ground another season, will do well to make preparation of the soil this fall, and have it ready for operations at the earliest opportunity in spring. It is of great advantage to sow Onion seed early, and the best way to ensure it is to do all that can be done in the fall to make the soil ready, for, if left until spring, it will take longer to dry than if it is left light and loose in the fall, and then there is, not only the time required for its

preparation, but, very probably, considerable delay by frequent storms at that season. In order to bulb well, Onions should have all the chance possible to make their early growth while the ground is cool; seed sown late, when the mean daily temperature is already high and increasing, may vegetate promptly, but the young plants make a very spindling growth and never produce as good bottoms. Old Onion-growers understand all this, and do not need to be reminded of the importance of the early preliminary work

Good Onion crops can be produced on a variety of soils, from sandy loams to clayey loams, and alluvial bottom lands containing a large amount of carbonaceous substance of vegetable mold. Soils of the latter character are probably best, but the land must be well drained; this last remark is true of all land on which Onion culture is to be undertaken, but it is not so frequently necessary on rolling uplands to underdrain as on the lowerlying bottom lands. Good crops are often secured on such lands by a system of draining with open ditches; generally, it may be considered that this method is more expensive ultimately than substantial underdraining, but there are localities where it can be adopted to advantage. On most clayey loams underdraining may be considered absolutely essential to secure the best crops of Onions, and this preparation should be made with full confidence that the expense will soon be repaid in extra crops. A good, sandy loam is a very desirable soil for Onions, and good crops may be raised on quite sandy soils with proper management and manuring. Level ground is more desirable than that having much slope, as on the latter the washings by heavy rains would be injurious. Land should be selected if possible that has just been in some hoed crop and that has, thereby, been left free from weeds.

Deep plowing and harrowing the surface until fine are operations essential to a good crop. It is well to delay the fall plowing as late as possible, but it should be done when the ground is dry, and the ground can be left in rough furrows all winter. Old, or well-rotted stable manure should be used at the rate of twenty cords to the acre on most soils. Fresh manure should be carefully avoided, as it

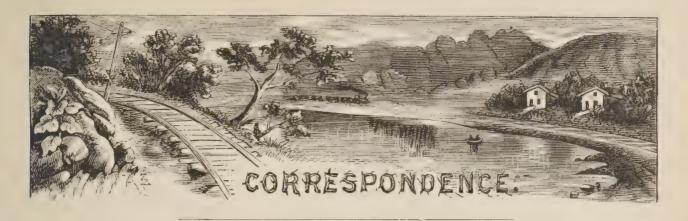
contains many weed seeds which would immediately germinate and, consequently, cause much extra work in weeding after the crop is up.

When barn-yard manure of sufficient quantity or of proper quality cannot be procured, artificial fertilizers may be used; of these, Peruvian guano and bone-dust can probably be used to best advantage, and should be applied in the spring and worked in during the course of pulverizeation. Ashes are sometimes used at the rate of one hundred to two hundred bushels to the acre. It is generally agreed by experienced Onion-growers that mellowing the soil deeply is a disadvantage rather than a benefit, as in that case the roots strike deep and the Onions do not form good bulbs, many of them being what are called bull-necks, or Scallions; consequently, if the cultivator is used in working the soil it should be set so as not to run more than about five inches deep. and on light soils the use of the harrow will be all that is necessary. This work should be done as early in spring as the ground is dry enough to work. It reguires about three weeks for Onion seed to germinate, and it should be got in with the least delay possible. Having the soil in proper condition, fine and mellow, the seed can be sown very rapidly with a good seed-drill. It should be in rows about twelve inches apart. If the seed is to be sowed by hand a line should be used to keep the rows straight; draw a drill by the side of the line, about half an inch deep, and drop the seed as evenly as possible, about a quarter to a half inch apart, and then cover by drawing a little soil over, or by spreading sand along the drill. Another way of sowing is sometimes practiced, and is thought to facilitate weeding and hoeing the crop; this is by distributing the seed in little clusters or circles about six inches in diameter, keeping the centers twelve inches apart each way; however, drilling in continuous rows is the generally accepted method. If all the work of cleaning and cultivating were to be done by hand and hoe, the cluster or hill method might present advantages, but with wheel-hoes and hand cultivators there is none. The implements referred to are now offered in forms so improved and perfected, and are such valuable aids in cultivation, that no one having much work to perform, of the kind to which they are adapted, can afford to be without them.

Onion-seed is a crop of considerable uncertainty to raise, and the amount of it produced from year to year is quite variable; as it is poor seed to keep, retaining its vitality but a short time, the price of it is subject to great fluctuations. It may be offered one season at a dollar or a dollar and a half a pound, and the very next spring be worth from four to five dollars. A little reflection will enable our readers to perceive that there is no safety in turning aside, in time of scarcity, from respectable dealers who have a reputation to maintain, in order to buy Onion seed at a low price. No one can afford to carry his stock over at any time on account of its poor keeping qualities, and if it is unusually valuable the more necessity is there for him to sell; to fix an exhorbitant price, therefore, and to maintain it, would be practically impossible. On the other hand, the temptation is very great at such times for irresponsible parties to pour into the market old seed at a comparatively low price. One cannot afford to take any risks in purchasing Onion seed, as the expense of propagation and the value of the prospective crop are too great to admit of any avoidable chances.

The staple varieties for general crops are the Wethersfield Red and the Danvers Yellow. Particular markets may demand white varieties to some extent, when White Globe can be raised for the main crop, and the Silver-skinned for very early use.

As soon as the young plants are fairly up, cultivating and weeding should commence, and be persistently continued until the crop is out of danger. A delay of a few days in weeding may result in the loss of a great portion of the crop. If any appearance of wilting or turning vellow of the plants is noticed, immediate inspection of them must be made, for this indicates the work of the Onion-maggot, which sometimes does considerable damage. The Onion-fly, Anthomyia ceparum, lays its eggs on the Onion, and the larvæ when hatched gnaw into the center of the little Onions and destroy them. All affected plants should be pulled up and burned. Soot is the best substance that can be applied to prevent the work of the insect, and next to this is powdered charcoal; lime, salt and ashes will all do good.



A SONG FOR MARGARET.*

I homage pay to lovely Rose,
To Dahlia proud, and Tulip bright,
And have tull many a word of praise
For fragrant Pink and Lily white;
But in no garden grows the flow'r
With golden heart and snow-white rays
That wins my love; it stars the fields
And shines along the lonely ways!

I grant to diamond the right
To grace the coroneted queen,
joy in ruby's wine-red glow,
In saphire's blue, and emerald's green
But far above them all I prize
The precious jewel of the deep,
That shines as shines the silver moon
On summer nights when Roses sleep!

For my true love, were she a flow'r,
A star-faced Daisy she would be,
And if she were a gem, a pearl
Most beautiful would glow for me.
And fair as Daisy, pure as pearl,
Within my heart of hearts she's set,
To bloom and shine forevermore,
My pretty, winsome Margaret!

*Margaret, in Greek, is a pearl, in French, a Daisy.

LETTER FROM IOWA.

MR. VICK:—I have thought many times I would like to tell you how pleased I am with your MAGAZINE, but, as I do not hold the pen of a ready writer, have thus far been contented to read the many good things that your numerous correspondents have written. In one of the numbers of the MAGAZINE you expressed a wish that more of your subscribers would favor you with their experiences, successes or failures, in floriculture. I am not accustomed to placing my thoughts on paper, and have a distrust of my ability to do so, and the result of trying to write anything interesting or instructive may prove like some other things in Iowa this year, a disastrous failure.

Your MAGAZINE comes to me regularly the first of every month. It is a gem; it is full of instruction. I date my success in flower-culture to the hints and helps gathered from its pages. The correspondence is rare, spicy, and invaluable. It grows better every year, for it now oftener describes new and rare plants, in which we are always more or less interested; not but that the old, familiar flowers are just as dear, and often have more pretentions to beauty than the newer varieties, yet we like to look on nature in all her forms of beauty.

I was particularly interested in the correspondence from the Bermudas in the April number of the present year, giving a glowing description of the climate and flora of that far-away strange country. The writer, among other things, gives a partial description of a vine called Bougainvillea, which I think must be very beautiful. Do you think we could succeed in growing it in this country as a window-plant?

I have the numbers of the MAGAZINE for the years 1878 and 1879 bound in one volume. The two years together make the book a nice shape, and it is hard to find a book more beautiful and attractive. I intend that 1880 and 1881 shall be bound in the same manner.

Life must pass very pleasantly to one whose time, like yours, is spent with flowers, noticing their habits and needs, and giving the result of long years of experience to the world.

This western country, and especially Iowa, is emphatically a land of flowers; they grow spontaneously. The broad, grand prairies are very beautiful in spring time and autumn with the various tints of these "sweet children of the spring." Many choice cultivated plants of other countries are natives of our prairies. For an exceedingly cold climate, like ours, nature puts forth wonderful efforts; the snow disappears very early, and vegeta-

tion comes so quickly it seems almost like magic. This was especially the case this year. Last winter was unusually long, cold, and dreary—the winter commencing with severe cold in November. The snow fell to a surprising depth, and we were reminded many times of lines in Whitterer's "Snow-bound,"

"No cloud above, no earth below, A universe of sky and snow."

We feared for our pets, our shrubs and evergreens. When the "solid whiteness" finally disappeared and winter passed to summer, leaving spring, that interesting part of the year, completely out of the calendar, the change was so great that the poor shrubs and trees seemed bewildered, so to speak, and presented a sickly, halfdying appearance, but they soon gathered their scattered forces and made up for lost time. Looking around at the present time, it seems as though nature was never more lavish in clothing tree and shrub, and, in fact, everything that wears green; and as nature has been extravagant in clothing vegetation, so has she been in furnishing bugs, worms, and all kinds of creeping things to destroy, and to remind one that "eternal vigilance" is the price we pay for things useful or beautiful.

We have now, standing on our lawn, a large shrub, a fine specimen of the Hydrangea paniculata. When we placed it there, three years ago, we had doubts as to its being able to withstand the severe cold of our mild winters. The first summer it was small and did not bloom, the next summer it produced fifteen heads of flowers, the next year thirty; at the present time it has over sixty buds, and if the hailstorms predicted by Vennor for unfortunate Iowa do not demolish it, it will very soon be "a thing of beauty." Last winter in Iowa was a sure test of its hardiness.

A large Catalpa standing near the Hydrangea lost its top by the cold, spoiling its symmetrical form, which time, however, may repair. Evergreens, as far as observed, are looking healthy, and are putting on a dark, thick foliage.

After all the floods, storms, drouths, the inconceivable multitude of insects, Mother Shipton and the comet, and Vennor's predictions, that have fallen to Iowa this year, we will, as far as can be determined, judging from the present appearances, have abundance of all that is necessary.

A word or two about my window-plants. We have a large bay-window on the east side of the house, one large, common-size on the south; together they will accommodate fifty or sixty plants. I gave my plants good soil, prepared as nearly as possible after directions given in the MAGAZINE, plenty of fresh air, light, heat, and moisture; this last was obtained by keeping a dish holding nearly two quarts of water constantly on the stove, day and night, and occasionally treating them to a small quantity of Bowker's fertilizer. The result was, that all through the winter my windows were gay with bloom. Near the center of the bay-window stood an aspiring Poinsettia, whose tufted head of bright scarlet reached nearly to the top of the window, and whose feet had to be placed on warm bricks to keep it in health; down about half way bloomed my Begonias and Gesnerias, and plants that like an intermediate heat; the lower shelves contained my Geranimus, Pelargoniums, Calceolarias, and one thrifty Agapanthus, which bloomed in March. The Gesneria is a very fine winter-bloomer; mine was in blossom from January to May constantly. There is a great deal of satisfaction in cultivating plants when one can make them grow.—Mrs. R. R., Iowa.

SALVIA PATENS.

MR. JAMES VICK:—The July number of your MAGAZINE contains an excellent plate of Salvias, and prominent among them is one that is not as extensively cultivated as its merits entitle it to be, so, with your permission, I desire to call attention to this pretty species, as I think it deserves a place in all collections, on account of the ease with which it is cultivated, as well as the exquisite deep-blue of its flowers.

The gaping or spreading Sage, Salvia patens, is a perennial, herbaceous, greenhouse species, with hairy stems, and opposite, rugose leaves and thick, fleshy, tuberous roots. It belongs to the natural order Labiatæ, and was introduced into England in 1838, from Mexico, where it was discovered in a mining district called Real del Monte. The flowers are of a pure, deep-blue color, of large size, being about two inches long, and are produced in terminal spikes from the summit of each of the principal stems, and also, at a later period, from the extremities of all the

lateral branches. Its pure shade of blue is unequaled by any other plant, but the individual flowers do not last as long, and are not produced in as dense spikes as S. splendens and its varieties.

Salvia patens is a plant whose character depends essentially upon the treatment it receives. If grown in shallow, sandy soil, in dry weather it becomes stunted in its growth and the flower-spikes are small, and so are the flowers, which drop very quickly; while, if given a deep border of rich, garden soil, it sometimes attains a height of over three feet, producing its large flowers in terminal spikes of over ten inches in length. Thus grown it requires to have its main stem and branches supported by a stake. In the event of dry weather a thorough watering of liquid manure water will be found of benefit to it.

Seeds of this plant are very sparingly produced, but it can be easily increased by cuttings, which, if struck early in the season and potted off into three-inch pots and liberally treated, will form strong plants by the tenth of May, when they can be planted out in a well-prepared, rich, deep border. On the approach of frost, take the plants up and pot them carefully, using ordinary potting soil. As soon as their stems decay the plants become dormant, when water should be withheld from them, and the pots laid on their sides under the stage of the greenhouse, or else placed in a dry cellar where they can be similarly treated. About the middle of March place them in a warm, light position, or plunge them in a hot-bed if possible, and water sparingly until they commence to grow, when water can be freely given.

The generic name is derived from salvo, to save, in allusion to the potent healing properties of some individuals of the genus, and the specific name was given on account of the remarkably expansive, or spreading form of the lower lip of the corolla.

When grown in the open air, in hot, dry weather, this Salvia sometimes becomes infested with the red-spider, the only insect to which it is subject. As a remedy, I advise to sprinkle or syringe the plant freely with water every evening, from the time the insects are first noticed until they are destroyed.—Chas. E. Parnell, Queens, L. I.

PYRETHRUMS.

Pyrethrums are classed botanically with compositæ, and, of course, like all of its family, lack fragrance, but the composite form, whether single or double, is always beautiful. Among composite flowers there are none better than the Pyrethrums, in fact, there are few as good. Not more than six distinct species are in cultivation, and of these only two are worth a place in the garden. Pyrethrum parthenium, the common double Feverfew, is the only form generally known to American cultivators, and is a great favorite on account of its very double, pure white flowers, which appear in such profusion as to almost cover the plant. Its foliage looks like that of the Chrysanthemum, and, when bruised, smells like camphor. In its single form it is a native of England. The double form has been derived from it by careful culture.

As much as this plant is admired, but few see it at its best, because it is usually grown as a pot-plant. Its full capabilities cannot be developed under such treatment, as its roots like plenty of room and a reasonable amount of rest, while as commonly grown in pots, it has neither. It is not considered perfectly hardy, and yet, by covering the plant with an inverted sod about the first of November, it rarely fails to winter. The sod should be taken off in spring, and it will be found that plants grown in this way will attain a degree of perfection that will surprise those who are trying to raise it as an evergreen in a narrow pot. In this climate it should be planted in the open ground in spring. It is propagated by cuttings and division of the root.

Pyrethrum carneum is not yet known to American cultivators, but it is destined to win a prominent place in the gardens of the future. In its single, pink form it is a native of the Caucasus, and is perfectly hardy in this latitude. For the double forms derived from it we are indebted to the skill of the gardener. The plant is very beautiful, having finely cut, fern-like leaves, which are reproduced twice during the season. The insect powder of commerce is said to be the pulverized leaves of this plant. The flowers of the best double sorts are as perfect as those of the Chrysanthemum, while, with the single exception of the yellow, all of the shades and colors are much better,

being very pure and intense, ranging from pure white, through pink and rose, to the deepest crimson, and a few have been produced with pale yellow tints. The flowers are quite persistent, remaining long in perfection, and in a bed of them will be flowers all summer.

The best double varieties are increased by division only, and this is best done in spring. Judging from my own experience, those who undertake to grow good double varieties from the best seed will be disappointed, for, while out of over thirteen hundred plants I had, a few of which were fairly good, I had only two that might in form, color, substance and habit, be called perfect; yet I was told that my percentage of perfect flowers was a little above the average. The more I see of this beautiful new plant, the more I am convinced that it has come to stay.—E. H., *Le Roy*, *N. Y.*

DOUBLE DEUTZIA.

If all the readers of the Magazine who are not acquainted with the pink and white, double-flowering Deutzia, could have it and derive as much pleasure from



it as I have, I think they would at least be thankful for having their attention called to it. I do not know a neater and prettier shrub. It is apparently hardy all over the country, for I have met with it in many parts, and it never fails to produce in abundance, every spring-time, its delicate, double, white flowers, tinged with pink on the lower side of the under petals. In the catalogues this shrub is known as Deutzia crenata flore pleno, it being a variety with double flowers of D. crenata, which is also one of the best of shrubs.—S. C. W.

THE PURPLE ROSE.

I came home on a chill November evening last year, out of humor, as every sensible man ought to be at that season. and found the household in excellent spirits, consequent upon the visit, during the day, of two nice men, who were told to call again, later. I was informed that, during my absence, some important transactions in purple Roses, at a dollar apiece, had taken place between my wife and these men, who had presented their credentials from an eminent firm of nurserymen not a thousand miles off. I find that tree men are remarkable for punctuality in keeping their appointments. two were at my hall-door sharp on time, where they were received by me with much warmth. I immediately delivered a brief but eloquent address, which I had prepared for the occasion of their arrival, in which I described them as rogues who pretended to represent a firm which had no existence, and flatly denied that the Roses sold to my wife were purple, or that there was such a thing as a real purple Rose. The varlets looked at me and actually smiled, as if I were a person whose dense ignorance deserved their pity. They implored me not to prejudge the case. "We have come from the nurserv of that firm this morning," said one. "I have seen the purple Rose myself," said the other. "We will make you a present of six purple Roses," said both.

These wanderers are an extraordinary class of men; their placidity of temper, which is a valuable part of their stock in trade, excites our envy and admiration, and there have been no such persuasive people since the days of Orpheus. If all the missionaries among the heathen were like them, there wouldn't be a pagan in the world.

I smiled then; I felt that I had done these amiable merchants a gross injustice, and I hastened to repair it, begging of them to come in and sit down by the stove. Serenity being established, out came the plate-book, and it seemed to me that it was the most attractive one ever published. My wife proposed ordering just one plant of each variety, including the purple Rose, but our guardian angels were at hand.

I was, however, particularly struck with the color of a remarkably early Grape, earlier even than the Beaconsfield, which, at no far distant period, will convert the sterile region of the Ottawa territory into smiling vineyards, and I instantly ordered it. I was charmed with the conversation of these men. We agreed unanimously that the originator of the scandalous report that the Beaconsfield was the Early Champion, or Tallman's Seedling, under another name, was a base rascal, and should be prosecuted.

The question was then discussed, as to the grand ultimate in horticulture, to which the constant artificial selection of the fittest was tending, and we were again of one mind, in that the present generation would eat Grapes at least a year in advance of any that had hitherto been introduced. I remarked that it was astonishing to contrast the garden of the present with our remembrance of that of the past, and that, if it were not for Peas and Tomatoes, and for the pride and pleasure which seedsmen have felt during the past ten years in placing before the public the earliest varieties, each a month in advance of its predecessor, their catalogues would long ago have ceased to issue. I noticed that my intelligent hearers were much struck with the force and justice of these observations, and taking advantage of the then unguarded state of my mind, these insiduous men again pressed upon me the subject of the purple Rose, and to convince me of my benighted state, they showed me a representation of a Rose about the size of a decent Early York Cabbage, of an intensely port-wine color. But I relapsed into obduracy and incredulity. "Send me the Rose bush," said I, "that you offered gratuitously, and if it turns out a purple flower, then I shall order six." And so we parted, having spent a delightful evening.

It came. I saw and conquered slug and thrips. Mildew was challenged and defied; and early last July the mountain brought forth the ridiculous mouse. It was a contemptible, dirty red, half-double, little Rose, which seemed utterly ashamed of itself, with Madame Welch on one

side and Mad'lle Rachel on the other. It was cheering, however, to reflect that I had got the inside of the track as far as pay was concerned, and that, if the result of my speculation in purple Roses was not in accordance with my wishes, at all events I had not been the dupe of a knave.—R. O'HARA, Chatham, Ont.

ASPIDISTRA.

Aspidistra lurida is a plant of erect habit, with handsome foliage, for which it is cultivated. It is so robust as to be one of the few house plants that may be said really to thrive well with such treatment. In winter it should have but little water and be kept in as low a temperature as possible, that is, not exceeding about 50°.



As spring comes on it will start into new growth, and then needs more water, and during summer cannot be oversupplied, even if standing in a saucer of it. A white-margined variety of it, called A. lurida variegata, is, according to the fancy of most persons, more beautiful than the green one. Both of them with me are very satisfactory house-plants, associating with my Ferns.

This plant has been found to do well in dusty, smoky towns, where few other plants will thrive. It is quite popular in London, and large numbers of them are annually sold there. It makes a good vase plant, and also thrives in the moisture and spray of a fountain; it is a good summer plant to use with others to ornament a water-border, and is valuable for various purposes.—S. C. W.

AMOMUM.

I have among my plants one known in the trade as Amomum Meliguetta, but which is probably A. Granum-paradisi. Its habit is fairly shown in the accompanying drawing. Under good treatment it will grow three or four feet high. It is cultivated as a curiosity, being the plant



from which is produced the grains-of-paradise of the shops. The crushed leaves emit a very pleasant fragrance. It belongs to an order of plants, the Zingiberaceæ, of which a typical representative is Zingiber officinale, the Ginger of commerce. A warm greenhouse is best suited to it, and probably in some hands it would thrive as a house-plant.—LIDA.

AMARYLLIS.

There are many theories as to the treatment of these grand plants, and, in practice, we have learned that they may thrive in almost as many ways as there are theories. Where there is a garden at hand containing a sunny bed with a light, rich soil, or one that can be made so, then, as soon as there is no danger of frost, set the Amaryllis out, shaking the earth of the pot entirely away. Make a hole large enough to spread the roots freely, then fill up, covering about half of the bulb. Let them stay in the bed as late as possible, not minding even a slight frost, so that the days are warm. It would, however, be better to protect them at night by a frame covered with muslin, for, though they will bear a slight freeze, and blossom afterward, it is best not to chill them. In some localities they could stay out until the last of September, or even later, if the

weather continued warm. When the frost becomes severe, take them up carefully with a pronged spade, or dig round them, and then carefully raise them. When repotting Amaryllis, use very rich earth, such as that from under a manure pile, or well-decomposed woods-earth, well-rotted manure (chicken is best), and fine sand (coarse will sink to the bottom of the pot). Use one-third each of garden soil, woods-earth, and well-rotted manure, unless the earth from under a manure-pile is used, when take half of that and half woods-earth. Put in as much sand as will cause the water to sink rapidly through it. Mix and try until there is enough. Previous to putting in the sand, add enough charcoal dust to give a dark tinge to the earth, about one-sixth. It is apt to make the earth pack harder, so use sand last. For drainage, use bits of charcoal, oystershells, or broken pots. Charcoal helps to keep the earth sweet, and also feeds the plants. Put the drainage in to one and a half inches in depth, at least, when a large pot is used, eight or ten inches high. Place a flat piece on the drainagehole, and pack the drainage well. Then cover with earth, and shake to settle it well among the bits. Place over this some well-rotted manure, in a layer half an inch thick. Form the earth over this into a little bell, or cone, placing on the top about a tablespoonful of sand. Spread out the roots, and set the base of the bulb directly on the sand, arranging the roots evenly round the cone. Fix the bulb at a sufficient height, in the pot, to allow the bulb to be half covered when the earth is settled an inch below the rim of the pot. Handle the roots tenderly, so as not to break or bruise them. Fill in the earth and tap the pot, so as to settle it firmly about the roots and bulb. Water freely once, and then not for several days after, setting the pot out in the sun for that time. After this time is out, they may be removed to the house and placed in a sunny window, or be set in the cellar, if free from frost, till the middle of December, when they can be watered well and put into a warm, sunny window. After this, unless the air is very dry, water well about twice a week, till the bud is out of the bulb, then very freely if there is plenty of heat and sun. They require careful watering till the bud is out of the bulb, because, if made too wet and the earth

becomes chilled by a change of weather, the bud either remains dormant several weeks or gradually decays. In such cases, the use of hot water will often start the bud into growth. It is best put into the saucer, or carefully round the edge of the pot. The Amaryllis should be watered very freely as the flower-stem rises and the leaves are forming. After the flowers have gone and the leaves are well-matured, twice a week will be often enough to water them.

If intending to keep them in the pots, repot them immediately after the bloom is over, in the way before described, and encourage leaf-growth as much as possible.

Washing the under part of the leaf once a week, with a sponge, adds to the health of the plant, and removes a minute insect that can be seen only with the aid of the microscope, yet which will, in time, destroy most of the leaves, first turning them to a brick-red on the under side.

When no more young leaves appear, let the plants go into comparative rest, watering about twice a week. If the leaves show signs of decay, set them under cover, as hard rains injure them while dormant. If they retain a vigorous appearance, let them remain green as long as they will.

There are evergreen varieties which retain their color all the season, starting new growth about four times a year, and generally bloom in the summer, fall, or early winter. Their native places are behind rocks, in moist places. Many of them grow in the West Indies.

Charcoal placed on top of the earth and around the bulb increases the vigor. When manure is not convenient to use, guano may be mixed in the earth, using about a tablespoonful to each large pot. Some amateurs think anthracite coal made fine has a good effect put on top of the earth and around the bulb. The sulphur of the coal may affect them favorably. Others use fine pebbles, thinking to keep dampness from the bulb.

In watering, a German florist advised that they be watered altogether from the saucer, as he thinks if the water should enter between the scales it would produce decay. As they not unfrequently decay when the ground is kept very wet, this may be one cause.

There are many theories as to cultiva-

ting, such as cutting off the roots when repotting, to produce early bloom in seed-lings, a theory directly contrary to most directions, but we are assured by a florist who has produced very early flowers in some fine seedlings of his own raising, that by so doing he advanced them a year; drying off the bulb for several months is recommended by most florists, one who raises fine, large bulbs saying he did not feel concerned if his bulbs remained dry eight months. It must be remembered in this case, however, that they were kept in the moist atmosphere of a greenhouse.

We consider two conditions absolutely necessary for fine bloom—either the richest earth in large pots, or the same with continual nourishment in small pots. Where it is convenient to have them, we prefer large pots, as there is a greater likelihood of good bloom, always.

When the bulbs are small, let them first push their roots to the outside of the earth before repotting, and then without disturbing the roots, except when entwined about the drainage, which should all be removed. In changing, use one size larger at a time, to promote compact growth and early bloom. All offsets cultivated in pots should be treated in this way, if rapid growth is desired; but where garden room is to be had, both these and larger bulbs increase in size much faster in the open ground. We have known ladies to take the bulbs directly from the ground, repot them, and then cut off the leaves. They then set them to rest for the winter, and until warm enough to again transplant to the open ground. Some Amaryllis, the A. Johnsoni, when treated in this way, have had three stems of bloom in succession.

We have tried keeping A. Johnsoni as Gladiolus are kept, that is, with the earth shaken off, and put into a basket or a paper bag. These bloomed nearly as well as those kept in the pot.

Seedlings are easily raised, and can be made to bloom earlier by the treatment described before. All seedlings and offsets should be kept growing constantly till the bulb is in blooming condition.

A south exposure is best for most blooming plants, and the Amaryllis is no exception; but, if they are kept in vigorous growth and have the required heat, they will do very well with a western exposure. None of the Hippeastrum, usually called Amaryllis, from the general name, like to be exposed to a strong draft, even out of doors. The orange-colored varieties do rather better in summer in partial shade. These need, also, very careful watering, and an extra quantity of drainage, or they are apt to rot off.

The fall, summer, or early-winter blooming varieties can be kept growing constantly. When desiring to bloom them in the house, however, they should be repotted in rich, sandy earth, in the spring; be watered well once, then sparingly for a week or two; then the pot should be turned on one side and the leaves be entirely dried off. When cool weather comes, take them in, water, and set where they will be exposed to the sun and have plenty of heat.

There are many fine standard varieties of both spring and fall-blooming varieties, and innumerable hybrid seedlings, most of which are finer than the original types.

It is not generally known that these bulbs, Hippeastrum, retain their vigor for many years. We knew of one which was twenty years old and still bloomed. After that time the mixing of labels by a busy little hand, occasioned confusion among the A. Johnsonis, and the veteran was never recognized afterwards, and so due honor to meritorious old age could not be given.—Celeste.

GARDEN NOTES.

It appears that English ladies in the culture of their Roses are obliged to deal with maggots which can only be well got rid of by applying the fingers, either to crush them between leaves or the fold of a leaf, or to pick them off into a can, to be emptied into the poultry yard, or otherwise given short shift. Our slugs are nauseous enough, but maggots! paugh! There is no recourse, however, either the maggots, slugs, rose-bugs, aphides, thrips, and all the correlation of destroyers must be caught and killed, or there can be no Roses worthy of admiration. Why should even flowers, when taken under our care, thus share in the Eden doom? We can understand why drossy things, like gold, should be costly in proportion to the extreme difficulty of procuring it. We are used to the fact that even the staff of life, the wheat of our daily bread, costs more of pains and labor and time, and risk of failure than any other crop, but flowers

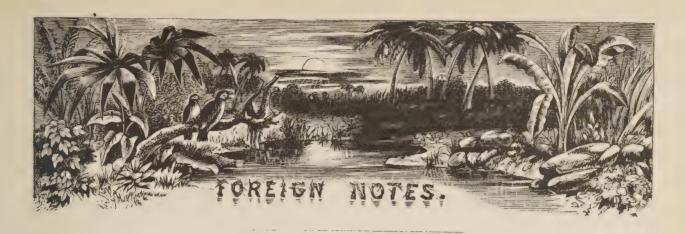
seem given so abundantly by nature, and appeal so specially to our finer æsthetic senses only, that one can but wonder at seeing the Queen of Flowers so beset. The explanation probably is, that nature would urge us to industry on every side. industry being essential to growth, health, and enjoyment. Even the plants themselves, stationary as they are, require the exercise of a good shaking up occasionally. This has been well shown by a correspondent of The Garden. After a cyclone in Jamaica, in 1879, it was noted how rapidly and vigorously plants recovered growth. It is said that Turnips and other bulbs do not swell well until the leaves get a twist from the wind. A young tree, staked up, grows with a slender stem, and seems as if wanting in backbone, and as incapable of standing alone as a delicately raised boy, or over-nursed lap-dog.—W.

VARIEGATED ANTHERICUM.

I have used Anthericum repens vitatum variegatum this summer for baskets and vases and find it admirable for the purpose, and can recommend its use to others if they will not be frightened by the long name it bears. Perhaps some-



thing of an idea of the plant may be had by an understanding of the name, for it conveys the information that it is a creeping plant, producing as it grows little plants, and having variegated foliage. The plant sends up flower-stems bearing fascicles of leaves at the nodes; the stems eventually bend downwards, and where they touch the soil roots are thrown out at the base of each leaf-cluster. With its white-margined leaves it is an attractive plant.—S. C. W.



SINGLE AND DOUBLE FLOWERS.

A correspondent of the *Gardeners' Chronicle*, looking from a gardener's standpoint and apparently oblivious of all other views, remarks that "the present taste for gawky, single flowers of certain kinds is retrogressive. It naturally conducts back to the garment of Fig leaves and all its very primitive associations." Then, with charming simplicity, he makes the inquiry, "Does any sane person prefer the Dog Rose to La France, a Devoniensis or a Marechal Niel?—a single Pæony to a double one, or single Stocks, Carnations, Asters, Balsams, Marigolds, aye, or scores of similar things to double ones?"

It may be difficult to decide who are sane and who are not, now-a-days, but it is very certain that a great many people whose sanity has never been questioned, but who, nevertheless, may be monomaniacs in our gardener friend's opinion, do find something very gratifying and beautiful in wild Roses, and single Asters, and single Stocks, and single Pelargoniums: neither are they insensible to the charms of a La France or a Marechal Niel. After looking over a great number of the best double Pæonies, it is a positive relief for the eye to rest upon a single variety. Calling such a flower "gawky" may tend to prejudice those minds that have no fixed, proper, or well-defined ideas of taste or beauty, but it has no effect, save to excite pity, with those who have worshipped at nature's shrine rather than at the gardener's.

We admire many double flowers, but not merely because they are double, but for the reason that in their forms and colors they satisfy the demands of good taste, judging them as artificial products. Not all double flowers do this, and, apparently, it would be well if the gardeners' hand were stayed in its efforts in doubling the flowers of some of our popular plants. Good taste, which is another name for good judgment, can appreciate the grace of wild Roses, or that of double Asters and Dahlias; we would not underrate these, but we would esteem those at their true worth.

A LIFE-TIME WITH ROSES.

The Rev. S. REYNOLDS HOLE, or Canon HOLE, as he is more commonly called, as President of the National Rose Society of Great Britain delivered an address at its exhibition in July last. The whole of it is spicy, but only some parts of it can be given here. After a pleasant introduction he said that "after thirty-five years of enthusiastic love among the Roses, thirtyfive years of daily observation, copious inquiry, careful culture, I come to communicate results. I feel much as I felt when, traveling one day on the underground rail, I misunderstood directions, and, crossing the wrong bridge, found myself, after forty minutes' absence, at the station from which I started. I go back thirty-five years, and though since that distant date I have grown Roses by the thousand, and instituted Rose shows. and won silver cups by the score, and walked through miles of Roses as a judge, and written a book about Roses, I am here after all to confess that my knowledge, as compared with my ignorance, is as a penny squib to a comet, as an unfledged tomtit to a flying eagle; that I have made mistakes innumerable; that I have planted too deep and too shallow. pruned too long and too short, too early and too late, manured too much and too little, exhibited flowers that were superannuated, and flowers which had not arrived at Rosehood; that I have succeeded where I expected to fail, and failed

where I hoped to succeed. But you will begin to murmur internally, 'Surely this man is not come all the way to Sheffield to tell us that he knows nothing,' if not to express your remonstrance, as when the blue ox of Artemus Ward rubbed some of his paint off against the central pole of the exhibition tent, and the spectators openly declared that 'that sort of thing would not go down in their enlightened district.' I hear you say, 'Let us have the results of your experience, however small they may be;' as when an Oxford examiner, being told by an under graduate who had failed dismally, that he

began to pick off the petals! I stood astounded, like Launcelot when

——the Queen
Brake from the vast, oriel-embowered vine
Leaf after leaf, and tore, and cast them off,
Till all the place she stood whereon was green;

and then I remembered I had business in another direction, and I went to it, a sadder and a wiser man.

"Supposing the love to be sincere and the intentions hearty, what next? Pure air. I have seen good Roses, it is true, which were grown within three miles and a half of St. Paul's Cathedral, and were exhibited at the first Crystal Palace Rose



had not been questioned on the subjects which he knew the best, tore off a tiny scrap of paper before him, and handed it to the plaintiff, saying, 'Be so good as to write what you know on that piece of paper.'

"Gladly and unreservedly I offer you the result of my experience with regard to the cultivation of the Rose. In the first place, as I have already intimated, your heart must be in your enterprise. There is a good deal of 'mere verbiage'—frothy effervescence, humbug-in some of those gushing expressions of delight and admiration which we hear so often. 'Oh, Canon Hole, what a heavenly duck of a Rose!' 'Well, it's not quite in its best form as you see it there.' 'No; but isn't it too awfully jollily not quite?' Misled on one occasion by these professions of adoration, I presented a lady with a lovely Rose, and, not long after, when she became intense upon some other topic, she

show by the grower, my friend Mr. Shir-LEY HIBBERD. But the disappointments are so many, and the successes so few, that I should say to all persons proposing to grow Roses within six miles of a smoky manufacturing town or city, as Punch said to all persons about to marry—'Don't.' This pure air must nimbly and sweetly recommend itself to the Rose, but it must not visit her cheek too roughly. Roses must have shelter, but not shade-free trade in sunshine, but protection from storms. They should have a screen of shrubs or of walls, but they must not be placed too near it. They dislike wind; and, as all things else which are fresh and clean, from a fair reputation to a leg of mutton, they must not be blown upon.

"The bush is beyond a doubt the prettiest form in which we can grow the Rose, and this we obtain by grafting, or budding, or by striking cuttings from the parent plant. You have all beauty of flower, foliage and form under your eye, with this additional and supreme advantage over the standard tree, that, when you have placed a thick blanket—that is, a good covering of straw manure—over your sleeping beauties towards the end of November, you may go to bed with the thermometer at zero and dream of Rose shows. A bed of these dwarf Roses, with the long laterals pegged down one year, and blooming from laterals of their own the next, is one of the most charming sights in a garden. The bed should be round or oval, raised in the center, and with a large surrounding of well-kept grass.

"What sorts, what varieties of Roses shall we grow? All sorts. Single and double, large and small. And in all forms -trailing along banks or towering on walls; making fountains, arches, and aisles; glimmering in plantations like 'star's which in earth's firmament do shine;' rising from beds of shrubs, or circling them, as we saw the old China Rose the other day in the gardens of the Crystal Palace. He is no true rosarian who does not love all the Roses; and some of you may have read the public and indignant protest which I have made against an accusation which has been brought against us, that, because we believe those Roses which you have seen to-day to be of all the most beautiful, we are indifferent as to the other varieties, and it has been suggested that, because the National Rose Society proposes to publish a catalogue of Roses most suitable for exhibition, it may be necessary to establish a rival institution to watch over the interests of Roses for the garden only. I think —and it is such a happy thought as even Burnand himself never excogitated that I know more rosarians, and more of the rosarian mind, than any other living man, and what I know most surely is this, that he who loves one Rose loves them all. Only the other day, when I had left in the garden some of the loveliest Roses I ever grew, and was on my way to the station, that I might adjudicate next day at the Crystal Palace aforesaid, I surprised a servant who was with me by stopping my dogcart to gaze at a garland of Dog Roses drooping down the roadside hedge, and I believe that most of my brethren would have been as charmed as I was.

"I am constrained to confess that H. M.

the Queen of Flowers is not refined in the matter of diet. She is a gross feeder, and when I think of the quality and quantity of her favorite food, I recall a passage in the letters of Charles Kirkpatrick SHARPE: 'I met Mrs. SIDDONS at dinner just before the death of her spouse. It was at Walter Scott's, and you cannot imagine how it annoyed me to behold Belvidera guzzle boiled beef and mustard, swill porter, take huge pinches of snuff, and laugh till she made the whole room shake again.' So does the prima donna of our stage; so does the Rose rejoice in strong sustenance, solid and fluid, with occasional pinches of tobacco powder and lac sulphuris; but, as with Mrs. Siddons, they who had dined with her forgot the beef, and the beer, and 'the pungent grains of titillating dust' when she appeared in all her power as an artist. So when we see the Rose in her beauty, we forget the midden and the tank. I go further than this in my devotion to the ladye of my love, and her likes are mine also. However unsightly to the eye, or unsavory to the nose, they seem to say, like the Earth in the Persian fable, 'I am not the Rose; but cherish me, for we have dwelt together;' and they do not appeal in vain.

"What is the main result of my long and varied experience in this matter? It is that I find myself as upon the Metropolitan railway at the place whence I The system which I followed thirty years ago I propose to follow so long as I am attached to this machine, and have the happiness of growing Roses namely, to give them a liberal supply of farmyard manure about the third week in November, which will act both as food and clothing also; to dig this in early in March, and afterwards to apply occasionally liquid from the tank, or some other of the refreshments to which I have referred. But the young rosarian must not place his main reliance on these enrichments, indispensable as they are admitted to be; he must believe in the manure heap, but must regard his soil and its cultivation as of primary and perpetual importance. Success in Rose culture can only be obtained in accordance with the universal and eternal law—you must work to win. There must be draining and digging, hoeing and weeding, and a watchful loving patience, which defends the Rose from its enemies, as well as surrounds it with friends. Hence the paucity of rosarians worthy of the title. There are numbers who gush at shows, take down the names, give orders, plant Rose trees, but who never stoop to pull up a weed, and as for extracting the grub from his leafy bower and handling him somewhat severely between finger and thumb, why that is "simply disgusting!" These are the sort of people who think when they have signed a check that Roses should spring up around them about the size of punch-bowls, and that thankful nightingales should sing in them night and day. Somehow this firework won't go off. 'O, ver don't want to go into business, don't yer?' said an angry father to his lazy and loutish son. 'Yer want an appointment in the Post Horfice, do yer? Post Horfice indeed! Why, all you're fit for is to stand outside with your tongue hout for people to wet their stamps against!' He who would grow Roses must not be afraid of dirtying his fingers—of resembling that clergyman of whom SIDNEY SMITH said, that he 'seemed to have a good deal of his glebe on his own hands;' or of a likeness to Martin Burney, to whom CHARLES LAMB remarked over a rubber, 'O, MARTIN, MARTIN, if dirt were trumps, what a hand you'd have."

ASPARAGUS.

A great deal has been published in English horticultural journals in favor of blanched Asparagus and opposed to it, and, on the whole, those in favor of raising it in such a manner as to enable them to obtain a long, white stem, do no appear to find it easy to satisfy all with the change, as most people prefer their "grass" green, although gardeners are offering the blanched stalks in the markets. A writer in a London daily says: "The wasteful way in which this delicious vegetable is cut and consequently brought to the table, is a striking example of the loss the public suffers, and apparently without complaint, in conformity to custom. When I see in the London markets the handsome bundles of large 'grass,' about six-sevenths of which is white and uneatable and only one-seventh eatable, and know that the same length might be sold for the same price all eatable, I cannot but regret the sad loss and waste of six hundred per cent. on this article of food. The evil arises from cutting the Asparagus too soon and below the surface of the beds. I allow mine to grow eight or nine inches above ground, and then cut an inch above the ground, and thus obtain seven or eight inches of green tops, the whole of which is eatable and of good flavor.

"Asparagus should always be cooked standing in bundles in the pot, with the tops just above the water, to prevent their being overdone whilst the stems are being cooked sufficiently. If any of your readers who grow Asparagus will try this plan of cutting and cooking, they will find they have saved the large percentage I have mentioned, and better knowledge on the part of the public would soon bring green and eatable, instead of white and uneatable, Asparagus to market."

GOLD-BANDED LILY IN JAPAN.

J. S., in the *Gardeners' Chronicle*, makes the following inquiry: "Does any one know where the vast quantities of Lilies come from in Japan, and how they grow there—whether in the woods or the open?—for if so, he will do good service by making it public, as, judging from the vast quantities of L. auratum annually imported from that country, it must be quite a weed there."

In reply to the above, M. JEAN VAN VOLXEM writes: "Coming from the south of Japan, I saw for the first time Lilium auratum a little after passing the gate of Hakoni, three days before arriving in Yokohama. They were grown in fields, by the side of the to-kaido, as our Onions are, and quite close to each other. As the flowers were beginning to expand the sight was magnificent, and the scent overpowering. It was much later, and far north of Tokio, that I saw them wild, coming out of the margin of the natural shrubberies, generally with a single huge blossom, sometimes two, rarely three. It is no wonder we got at first notice such quantities of them, as the bulbs are a common article of diet with the natives, and are sold everywhere as a vegetable in the markets. I have eaten them pretty often, and rather relish them, as they are, when cooked, sweet, mucilaginous, and without any decided taste to make them objectionable to a new comer."

Evidently this Lily is well suited with its native country, but we doubt if it will ever be quite so well at home here.



A FEW QUESTIONS.

MR. VICK:—I am a lover of flowers and plants, and want to ask you a few questions, hoping you will please answer them.

How can I keep Coleus during the winter? I was unsuccessful with all of mine last winter.

Will Smilax bulbs start themselves after they have rested? I let mine rest weeks and then watered them, but they rotted.

How old does Amaryllis Johnsoni have to be to bloom, and should it have any rest before it blooms, or can it be grown right along?

Does the Day Lily bloom well in the house, and how should it be treated?

I had a Peruvian Lily sent me. Is it of the nature of the Amaryllis? The leaves look very much like it.

Has the plant called Widows' Wreath another name?

What is the name of a book on botany that is easy to learn, and where can it be purchased, and at what price?—something that can be mastered easy. Please answer these many questions, as I particularly want to know.—Atherton Hale.

The Coleus requires hot-house, or warm greenhouse treatment in winter. It is a poor plant for the house in winter in a cold climate. It is more expensive to keep plants of this nature over winter in the house, with ordinary treatment, than it is to leave them out of doors to freeze, and then purchase again in the spring.

Smilax roots kept in a moderately cool place while resting, and then watered and placed in a temperature of 65° to 75° ought to start again without any trouble.

The Day Lily is not cultivated as a house-plant, since it is perfectly hardy and can stand in the garden winter and summer.

We do not know Peruvian Lily nor Widows' Wreath by those names.

Gray's School and Field Book of Botany and Wood's Class Book of Botany are both good books, but we cannot say that they are particularly easy, though to one interested in the subject they present no difficulties that persistent study and attention may not overcome; neither will be considered "hard" to one who enjoys the

acquisition of knowledge. There is very little worth having or knowing that is not worth some protracted, vigorous work to acquire; and the mind, like the muscles of the body, strengthens by exercise, so that what at first may have seemed like a burden is at last borne with ease.

GARDENING IN COLORADO.

JAMES VICK:-We have been trying our luck gardening, for two years, with very good success. My object in writing this is to ask you if you, or any of your correspondents, can tell us why we can raise no good Corn in this section of the country. We have a fine looking patch, much better, we think, than the average, and we had great expectations of a fine crop, but are much disappointed to find it badly eaten by the worms. The past year all gardeners in this vicinity were similarly troubled. How do the worms get into the husks? Is there any way of preventing such wholesale destruction? Every ear we have gathered has been so bad that about half had to be cut away. If you could answer this in your MAGA-ZINE it would be a favor to me, and perhaps to others.

My flower garden is beautiful. All annuals thrive in Colorado soil. Many seed themselves here that I never knew to do so in Massachusetts. Among them are Cockscomb, Balsams, Nasturtiums, Verbenas, Asters, Mignonette, Sweet Alyssum, and Portulacca. Many eastern garden flowers are wild here. We have beautiful white Abronias, larger than the pink ones I used to raise in Massachusetts; very large blue, and white Larkspurs; large, blue Columbine; both blue and white Spiderwort, and an almost endless variety, the names of which I am not familiar with.

We are having very good success with the Water Lilies we purchased last year. They lived through the winter and came out strong and healthy. We have already had about a dozen blossoms, and more are coming. We have four plants, in tubs sunk in the ground, and in the fall we put boards over the tubs and put a pile of horse-manure and straw on the boards; it protected them perfectly.

I think the florists in Denver can show a far finer stock of Fuchsias than can be found in the east; the climate seems particularly adapted to them. I have one that I know would be a perfect wonder to my eastern friends. Just now I am letting it rest, but in the winter it was very large. I trained it against a trellis about five feet or more high, and from the top of that the branches drooped till the blossoms almost touched the ground.

We have almost perpetual sunshine, which, perhaps, accounts for some things doing better here than in the east. I shall hope to see an answer to my questions before long.—Mrs. S. W. F., *Denver*, *Colo.*

We have had no previous complaints in regard to worms in the Corn, consequently know nothing of what causes it. We presume some of our readers, residents of Colorado, can throw some light upon this subject, and our columns are open for their use.

AZALEAS AND OTHER PLANTS.

MR. VICK:—I. How shall I treat my Azalea in the summer. I bought one four winters ago in bloom; the next winter it bloomed, but since then not even a bud has appeared, though the plant seems thrifty. What kind of soil does it need, and ought it to be watered freely or not, and does it require sun or shade, and how can I get new plants, by slips or dividing the roots?

2. How shall I treat my Cape Jasmine? I have not had a blossom for a year; it drops its buds just when

they are ready to unfold.

3. My Cyclamens refused to bloom this last winter. How shall I treat them during the summer, and what soil, and how much water do they require.

4. I have a Lilium longiflorum that has not blossomed since the first winter. Some times it will seem thrifty and some winters will be very spindling, but in either case there are no flowers. The soil I use for most of my plants is a mixture of loam, leafmold and sand. For my Azalea I added a little peat from a swamp, as I had read that it was good.

5. What are Cape Heaths and Stephanotis. What kind of flowers do they bear, and are they expensive?—H. M., *Uxbridge*.

In summer it is best to plunge pots of Azalea in sand out of doors rather than in the garden soil, as in the latter case worms are apt to get into the pots and injure the roots; they will not work in sand. The plants can be exposed to the sun, and the foliage will not be injured if removed from the house on a cloudy or rainy day. During June, July, and August syringe the foliage of the plants twice a day to prevent the increase of insects. Water the plants when dry, but do not keep them soaked. Plants are best propagated by cuttings made of the young wood in the spring, when it is half-hardened. cuttings should be placed in clean sand in boxes covered with glass, in the conservatory or the greenhouse; it requires from six weeks to two months to root them.

The Cape Jasmine mentioned is in an unhealthy condition from some cause. Examine the roots and ascertain their condition. If necessary, report the plant, and be careful afterwards not to give it too much water.

Cyclamen during summer may be best kept in a shaded cold-frame. A little water can be occasionally given as needed; the point is to keep them in a healthy condition without allowing them to dry off, nor yet, to make much, if any, growth. After three years Cyclamen bulbs will not produce as fine flowers, although they will continue to live and bloom a long time, if properly cared for. Florists usually discard them after the second, or at most the third, season of blooming.

The best thing to do with the Lily that is enfeebled by pot-culture is to plant it in the garden. If house-cultivation of it is still desired, a new, strong bulb should be taken for the purpose.

Cape Heaths are small shrubs, bearing beautiful little flowers of different colors. The plants were originally introduced from the Cape of Good Hope. In Great Britain they have been long in cultivation, and many varieties of them have been originated. Our hot climate is not favorable to their healthy growth, and they are not very much raised here.

Stephanotis floribunda is a fine greenhouse climber, bearing bell-shaped, fragrant, white flowers.

SWEET CICELY.

MR. VICK:—I enclose a sketch of a plant which grows in the alluvial soil found fringing many of the streams in the north of this Province. It flourishes best in spots where the soil is specially rich, damp,



and shaded with trees. The average height is about thee or four feet. The lower part of the stem is of a purplish color, shading off into green on the upper part. I send the leaf, seed-pod, sections of the stalk, and a part of the root. The root, which is supposed to possess a medicinal value, is noted for its pleasant taste and fine odor. The plant is commonly known as Cicely Root. Would you kindly give its botanical name, and state whether the root is of any value.— I. C., *Halifax*, N. S.

The specimen accompanying the above note was Osmorhiza longistylis, an umbelliferous plant native of most parts of the country at the north, and more abundant in the northernmost parts. The roots of this plant are used to some extent medicinally, being carminative, expectorant, demulcent, aromatic, and stomachic.

ROOT-BOUND PLANTS.

Will you tell me through the MAGAZINE if, in repotting plants that have become root-bound, the matted roots on the bottom and sides of the ball of earth should be cut or torn off.—H. M. C.

Whether a portion of the roots may be removed or not depends upon the nature of the plant, and the time, and what is expected of it. If, in its growing season, a plant should be found pot-bound, and its growth thereby stopped or very seriously checked, repotting should be performed without mutillating the roots, if possible, but merely loosening them and filling the fresh soil around them. On the other hand, if a plant has been resting, and it is desired to prepare it for another season of growth, then it may be no injury, but a positive benefit to remove a portion of the roots, thus allowing it a chance to send fresh, young roots into the new soil which will be given it. It should be remembered that a plant deprived of a portion of its roots is not in a condition to support all the top which had been formed in connection with those roots, and, therefore, it is necessary to remove a part of the top at the same time the roots are removed. In this way the balance between the top and roots is preserved, and growth will commence again with vigor.

THE GREENISH FRINGED ORCHIS.

James Vick:—I send to-day a flower which is new to me, and which I have never seen in your Magazine. If this is anything new to you, and you should desire a root, I will procure one and send it to you. When on the prairie last summer, I took one home to Dubuque and kept it in the conservatory all winter. In the early spring it showed signs of life, and when I came away it was about four inches high. I left it with a friend, and hope it bloomed. It is as fragrant as the Tuberose, and emits its fragrance at evening. It seems scarce, but I always find two not far apart.—Mrs. B. A. G., Clarion, Iowa.

The plant described above is Habenaria leucophæa, the Greenish Fringed Orchis. It is a beautiful plant, and well worthy of

cultivation. As it is quite hardy, only garden culture is necessary, but how well it will succeed there we are not informed.

A FEW INQUIRIES.

I wish you could tell me what kind of treatment the Campsidium needs. I have had one for a year. It was about a yard in length, or height rather, last winter, and as soon as the weather became warmer I would set it outside of the door in the sun, and then take it in when it became cooler, but it did not look so well, and seemed to be dying down from the top until it all died. It was one of my favorites. I examined it at the root and repotted it, but could see nothing wrong. Can you tell me the cause of it?

I live near a grove and a swamp, and think that I ought to have just the right soil to have plenty of flowers in the winter, but I have very few plants that bloom. I would very much like to know what they call leaf-mold. Is it the black, wet leaves that are under the dry leaves in the woods? I have taken the dirt out of an old hollow tree. Would that be too rich? Please be so kind as to inform me, for I very much want to have them bloom this winter. Will a Climbing Hydrangea live out of doors in the winter? I do not see anything about that plant in your books; I have had one over a year and it has not grown two inches high. How does that want to be treated?—MRS. S. S. B., Greenport, L. I

The Campsidium in this climate is a hot-house, or warm greenhouse plant, and not much may be expected of it outside.

Swamp muck is of little value for potplants. Leaf-mold mixed with the loam taken just under the sod of an old pasture is suitable for nearly all plants; additions of sand and manure can be made as necessary. Leaf-mold is the fine soil formed of the decayed leaves of the forest, and is usually found immediately under the dry leaves that cover the ground in the woods. The dirt from an old hollow tree, as mentioned, is about the same as leaf-mold.

We have no experience with the Climbing Hydrangea, Schizophragma hydrangeoides; it has been recommended as a hardy, rapid-growing, climbing shrub, but there are many complaints in regard to it.

JASMINE, SMILAX, AND CANNA.

MR. VICK:—By answering the following questions in your MAGAZINE, as soon as convenient, you will oblige me very much:

1. How can I increase the white Jasmine?

2. What is the proper treatment of Smilax? I purchased two roots, but they seem to be drying up, though I water them well.

3. Can a Canna Indica be grown in the house in winter if started in September?—E. M., Far Rockaway, L. I.

Most of the Jasmines are white, but probably either J. officinale or J. grandiflorum is the species alluded to. Either of them may be propagated by cuttings and layers. The cuttings are made of the young wood and before it becomes too hard; they may be taken at almost any season, but will root quicker in summer than in winter. We prefer to propagate them in summer in a gentle hot-bed.

The Smilax roots should be allowed to dry off and rest during summer; in August and September, and afterwards, they may be repotted and started into new growth.

The Cannas require a high temperature to grow well, and there is little occasion to force them in winter since they do so well in summer. It is better to use other plants for winter decoration.

FRITILLARIA.

MR. VICK:—I was much pleased with the article in the July number of your interesting MAGAZINE about the Guinea-Hen Flower. Never having seen it described or mentioned in the MAGAZINE, I intended to write to you about it, but I am glad I did not, as "Aurora" has given a much better account of it than I should have been able to. The Guinea-Hen Flower grows wild out here in California, usually on the north side of hills, in cool, damp places, where it usually begins to blossom in February. Last year I took up a specimen (with seven blossoms) while in bloom, that being the only time they can be found, and planted it under the benches of our hot-house, in pure leaf-mold, and this year it bore four blossoms. I have found them with as many as nine flowers, growing from eighteen inches to three feet. The flowers are yellow and brown.-T. S. P.

The latest works on the botany of California describe nine species and two varieties of Fritillaria native of the western coast of this country. Some of these may yet be brought into cultivation.

PLANTS NOT BLOOMING.

MR. VICK:—Can you tell me in the next number of your MAGAZINE why my Begonia Weltoniensis drops its buds and blossoms before fully developed? It seems healthy. Are Begonias subject to insects?

I have two Roses which are over a year old, good size and strong plants, but never bloom. Can they be coaxed to? One is a Marechal Neil.—MRS. W. S. B., Wellsville, Kansas.

We infer in this case that the plants have been kept in a window in the house all summer, but under precisely what conditions we have no means of knowing; and in reality, though said to be healthy, they are in an enfeebled condition. The Begonia should have been either planted or plunged outside; if kept in open air under a veranda the condition of its roots should have been attended to early in spring, and fresh soil given if necessary.

Insects of various kinds will attack Begonias, but if the plants are kept in a moist atmosphere, a condition they require for health, insects are not apt to trouble them much. If kept in too dry an atmosphere they may be preyed upon by green-fly, red-spider, scale and other insects.

Marechal Niel Rose is of no particular value for house-culture; in order to bloom well it requires to be of good size and in vigorous health. Only when planted in a rich border in a greenhouse may any good results be expected from it in this climate.

WATER LILIES AND ANNUALS.

MR. VICK:—May Water Lilies be set in the fall, and, if so, at what time? Also, when is the time to sow seeds of hardy annuals recommended to be sown in the fall?—E. P. D., Sheridan, Mich.

Water Lilies, like other perennial plants, may be removed and transplanted in the fall when they have completed their annual growth. It is customary to move them any time after the first of October.

Some kinds of annuals may be sown early in the fall, so as to be sure to get the plants strong enough to winter successfully; others may be sown later, such as would not bear the winter, but which will germinate early in spring, and grow while it is yet cool and without regard to slight frosts. Pansies, and Sweet Williams, and Lychnis, and the Chinese Pinks, and some others, should be sown early in September, at the north. Seeds not intended to grow in the fall may be sown as late as the last of October, or even in November, if the ground remains open.

GROUND IVY.

Mr. Vick:—On reading the August number of the MAGAZINE I was surprised. yes, shocked, at the recommendation of that pestiferous weed, Ground Ivy. I have not a distinct "remembrance of the grandmother" of blessed memory who most unhapily introduced it into my garden, but I have a most vivid one of the evil consequences resulting from her act. It is a perfect nuisance, worse, far worse, than the "Pusley" so eloquently described by the author of "My Summer in a Garden." The vitality of Ground Ivy is most amazing. Its introduction even in a hanging-basket is dangerous, unless the contents thereof should subsequently be burned with fire.—A SUFFERER.

A QUINCE PARASITE.

A most destructive fungus has visited the Quince trees of this section this summer, and we are now hearing from it in some parts of New England. This parasitic plant is known scientifically as Ræstilia aurantiaca of Peck. Its general color is a deep orange red, but with its upper extremity nearly white; the spores, which are abundant, are of the deep

orange color. It shows itself first on young, green fruit, and afterwards fastens upon the young wood, causing a sort spongy, tumid growth beneath it. The fruit upon which it fastens ceases its growth, and is soon covered by it. Many of the specimens of affected fruit coming under our examination had been visited by the codlin moth,



TWIG OF QUINCE TREE PARTIALLY SURROUND-ED BY FUNGUS.

and contained their larvæ. It has also been noticed that a small aphis-like insect feeds upon the fungus, but the insects, apparently, bear no causal relation to the presence of the fungus. So far as known, all that can be done is to collect all the



SECTION OF QUINCE FRUIT; OUTSIDE COVERED WITH FUNGUS; LARVA WITHIN.

affected fruits and twigs and branches, and immediately burn them, thus preventing the dissemination of the spores. This course has been pursued in very few cases, and the result is that nearly the whole crop is a prey to the destructive parasite, and the limbs and shoots are badly infested with it. If all Quince-growers would work together, and each one faithfully destroy the fungus as fast as it makes its appearance, it could, undoubtedly, be soon stamped out; but as there appears to be no disposition to do so, it will probably run a ruinous course until active measures are taken with it. The visitation of this pest is so widespread, it is to be hoped that some one among the many that contend with it, will discover an efficient mode of dealing with it.

VARIOUS INQUIRIES.

From L. W. we receive the following: "Will you please tell, through the next number of your MAGAZINE, what will prevent red-spider from getting on an English Ivy?" Water will do it. An English Ivy raised in the house should be trained in such a manner that it may be taken down at least once a week, and be carried to the kitchen sink, or other appropriate place, and there receive a good syringing of its foliage. More frequently it may be sponged, and it will repay by its beautiful appearance and healthfulness the extra care bestowed upon it. By evaporating water in the room sufficient moisture may be maintained in the atmosphere to satisfy the requirements of the plant in that Thus treated it will not be respect. troubled with red-spider.

N. A. F., of Cambridge, Mass., writes: "We have had a Clematis Flammula for many years, and it has always grown and bloomed very freely until this season, when it has not grown two inches. Can you tell me what ought to be done with it? We have always valued it much and enjoyed its fragrance." The plant should have manure, and it will be well to apply it some distance from the stem of the plant, as the roots have probably extended from five to ten feet away from it. If stable-manure is used it can be applied in the fall and allowed to remain on the surface of the ground all winter, the soakings of the rain and snow carrying it into the soil. If an artificial fertilizer should be employed it may be applied in the spring, and, if possible, be worked into the soil.

Julia H. K., of Jackson, not mentioning what State, writes: "I would like to learn

what is the best thing to do for Pansy plants when they dry and brake off at the root, just above the ground. I thought it must be a cut-worm, but did not find any. I had a bed of very healthy plants, and large flowers, and they are all spoiled. I dusted on sulphur, but could not save them. I have another bed just commencing to bloom, going in the same way. We water them twice a day. Please enlighten me if you can." Our own Pansy plants are affected to some extent in the manner above described, and we attribute it entirely to the heat. In autumn they recover themselves and bloom freely. We think our correspondent will find the plants improving as the cool weather comes on.

TREATMENT OF DAPHNE.

I bought a Daphne this summer, and feel very desirous to have it bloom this winter, but do not know how to treat it to bring about the desired result. It is in a five-inch pot, and is seventeen inches high from the pot; the stalk is woody and bare, and the top looks healthy. I see some brown, dead-looking roots at the bottom of the pot, through the hole. Shall I repot it? I have south; west and north windows. Which of them is best to put it in? When will be the time to take it in? I have it now in a sheltered place with my Azaleas.—Mrs. Wm. L. K., Mt. Vernon, Ohio.

The Daphne, and we suppose it to be Daphne Indica referred to, can be kept in the same manner it is now until about the middle of September, when, with the Azaleas, it can be taken in Then it may be given a place at a south window and have the temperature of a living-room. The plant should not be repotted now, nor until it has finished blooming; after that, or about the first of March, and before commencing to make a new growth, it may be repotted in fresh soil—a mixture of leaf-mold and turfy-loam with a little old cow-manure will be suitable.

LILIUM CANADENSE.

MR. JAMES VICK:—I send you by this mail a piece of the stem and flower of a Lily found growing here. If you can recognize it when it reaches you, please name it through your MAGAZINE, and let me know if it is common for a Lily to have such a stem, and as many flowers. This one had forty-two blossoms on it in perfection at one time. Also, if there would be any probability of the same bulb producing such a stem and quantity of flowers another year if it is transplanted to the garden. Also, what season of the year would be best for removing the bulb.—L. R. C., Yarmouth, Maine.

The specimen was Lilium Canadense with a multiform stem. It is not uncom-

mon for Lilies and many other plants to send up flower-stems that are adnate, or joined together throughout their whole length, sometimes even the flowers growing together, forming a monstrosity; the common Dandelion very frequently grows in this manner. It is not probable that the plant showing such a feature this year would do so the next. The time for removal of the bulbs is after the middle of September.

THE MESQUIT BEAN.

MR. JAMES VICK:—In your MAGAZINE for July is a letter from A. K., Toronto, Ont., making inquiries in regard to the Mesquit Bean of Texas. In this portion of Texas, between the Brazos and the Colorado rivers, I have never heard the Mesquit called the Screw Bean. I see no reason why the variety we have should be called so. I send you with this a bag containing a few of the beans. There are very few this year, on account of the late frost. The bean is eagerly eaten by stock of all kinds, and even by children, as it contains a sweetish pulp. I once knew a little negro, four years old, to get lost in July, and remained on the prairie four days without any water or other food than the Mesquit Bean. I do not think it would be profitable to cultivate the tree for the Beans. I think only Mexicans, Indians, and travelers out of the reach of civilized corn-cribs, place dependance on the bean for a supply of horse-food, although they are, wherever they grow, looked upon as an agreeable variety or change in food, as the different kinds of stock eat them from the low trees on which they grow. I think it is before they get dry that they are available for food, as the husk is then pulpy, and the bean not too hard for mastication.—Mrs. M. C. A., Maysfield, Texas.

DODDER IN THE GARDEN.

MR. VICK:—Please find enclosed a vine for name. It is new to me. I found it in a bed of Mignonette and Feverfew. It is clinging around the Feverfew an inch from the ground. It was two feet high and branched out without a leaf. The sun shines on it half of the day.—MRS. A. S. H., Woodstock, Ont.

The plant is the parasite, Dodder, and, if not destroyed, it will overrun and greatly injure, if it does not entirely destroy the other plants. It is interesting but pestiferous.

AN INSECT-DESTROYING PLANT.

It would be interesting to have any information in regard to the properties of Ledum palustre as an insect-destroying plant. A few years since a Berlin journal recommended it as a substitute for the Persian insect powder. It is stated that whether fresh or dry it will kill lice, fleas, moths, beetles, and their larvæ, and other insects. A little of the tincture of the plant applied to the bite of an insect is said to relieve the itching and pain, and that the tincture mixed with glycerine and rubbed on the skin will prevent the attacks of mosquitos. The leaves and stems are the parts used, and should be gathered about the time of flowering. Hobb's Botanical Hand-book gives the plant the following properties: "Bitter, sub-astringent, vulnerary and insecticide.'

Who has had any experience with it and can give any facts in relation to its possession of the properties ascribed to it, and what is its proven value as an insecticide?

The plant is a native of the Alps, and, according to Dr. GRAY, of British America. It is a member of the Ericaceæ, or Heath, family. As it thrives best in high latitudes, its cultivation may yet prove valuable in sections meagerly provided with useful plants. Notice must be taken that it is not L. palustre of Wood's botany, which is L. latifolium of AITON, but the variety of it, angustifolium, therein described. As the two species, L. latifolium and L. palustre, are so closely related, there is a probability that their properties are similar, although they may be of different degrees of intensity, and as the former, commonly known as Labrador Tea, is not uncommon, we hope those to whom it is accessible may, the present season, give it a trial with respect to its insect repelling and destroying properties.

Japanese Maples.—Some kinds of the beautiful Japanese Maples were injured by the severe weather last winter at Flushing, Long Island, but on the opposite, or southern, side of the island the same varieties were unharmed. The principal varieties that stood the test without injury are Acer polymorphum atro-purpureum, A. p. sanguineum, A. p. roseopictus, A. Japonicum palmatifidum, and A. J. pinnatifidum.

SWEET WILLIAM.

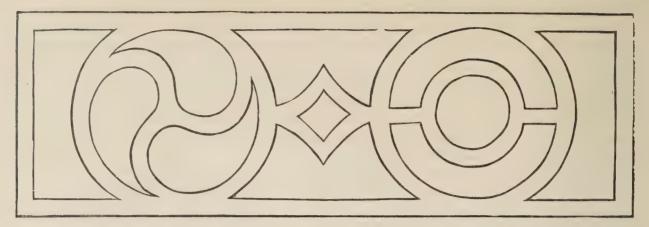
Seeds of the Sweet William sown this month will produce plants that will winter over well, with a little protection from leaves, and the young plants will be ready to make an early growth in the spring. There is a great advantage in sowing seeds of the hardy annuals, and



some perennials and biennials, in the fall. Make a nice, mellow bed and sow the seeds in rows, not more than half an inch deep, and water, and then cover it over with some grass-clippings, to keep it moist. Water occasionally, as needed, and when the plants appear remove the covering.

COLORING WHITE FLOWERS.

MR. JAMES VICK:—A very pretty experiment is performed by putting the stem of a freshly-cut Tuberose, or other white flower, into diluted scarlet ink for a short time. The liquid will be drawn up into the veins, coloring them in a very pleasant manner. It is also instructive, showing whether a plant is net-veined or paraleled-veined. A Tuberose colored not too highly makes a very pretty novelty. I gave one to a young lady, who wore it in a mixed assembly, where it attracted considerable attention; among those interested was an amateur botanist who entered into a lengthy explanation of how he supposed the matter to have been accomplished by hybridizing, and considerable merriment was caused when the truth was revealed. I discovered this process accidentally, and the ink mentioned is the only color I have found fine enough to pass into the pores of the flowers.—I. S., Cincinnati, O.



NOTES AND SUGGESTIONS.

MR. JAMES VICK:—I send a design of my terrace flower-garden. Perhaps it will be of some benefit to those of your readers who have terraced grounds. My garden is one hundred feet long and thirty-five wide. The beds are edged with sweet Violets, and may be planted after the ribbon style or filled with promiscuous bedding plants, planting, of course, the taller-growing varieties near the center of the beds.

In regard to Thomas Cole's failure to have flowers last winter. Might it not have been owing to his growing his plants in too large-sized pots, and giving too much nourishment to them, thereby encouraging an over-luxuriant growth of foliage? This is often the case, especially with Calla Lily and Geraniums.

As I have never seen any suggestions on landscape ferneries, I will give a description of my own plan. In the first place I prefer to grow the Ferns in pots, and fill up the space with live, green moss from the woods, completely hiding the pots. The scene in my fernery is intended to be a representation of the wellknown story of Little Red Riding Hood on her way to her grandmother's home. The sly old wolf, the good woodsman, the faithful dog, grandmother's cottage, and a small lake with a pair of swans floating on the smooth water, may all be seen; a piece of broken mirror is used to imitate water in the lake. Sea shells and specimens of rock help to beautify the scene. My figures are of cheap china-ware from the toy shops -R. A. S., Hood's Landing, Tenn.

A DISEASE of the Tomatoes, causing them to decay before ripening, is prevailing in many parts of the country. The cause and a remedy are eagerly desired.

SEEDS FOR A CONSERVATORY.

MR. VICK:—I wish to ask you if the present is the proper time to plant greenhouse seeds? I am going to have a conservatory this fall, and I want to plant some seeds of Abutilon, Calceolaria, Coleus, Fuchsia, Lantana, Salvia, &c. Please inform me when the proper time is to plant them.—E. D., Vineland, N. J.

It requires from three to six months from the time of sowing to bring most plants to a blooming condition from seed; many require nearly a year, and some a still longer time. A beginner with a conservatory, or small greenhouse, should not expect winter-blooming plants from seed sown in autumn. A small collection of good plants should be procured to start with, and then seed may be sown afterwards at the most appropriate times. Autumn as a rule is a poor time for seedsowing in northern climates, and, unless with some kinds that are absolutely necessary to be sown then, it is better to postpone it until the days begin to lengthen; the care of the plants through the cold season will thus be avoided and they will make a much more rapid growth. It will be much better, we think, to sow the seeds enquired about in February rather than earlier.

THE NEW FRUITS.

The Third Appendix to The Fruits and Fruit Trees of America, prepared by Charles Downing, has just been issued by John Wiley & Sons, 15 Astor Place, New York. It contains descriptions of nearly all the new and valuable fruits that have established their reputation since the issue of the last appendix to the second revised edition of the work of which it forms a part. It is a pamphlet of seventy-five pages, uniform in size with the principal work, and will prove of service to those interested in new fruits. The authority from which it emanates stamps its value.



HOW IT ALL CAME ABOUT.

There was a great hubbub in Nettie Mason's room on a certain day not a thousand years ago. It was on one of those rare March days that give just a hint of balmy weather to come, after more cold and bluster. Her Uncle Ingram, living on the same square, had invited her to take a drive, and she had gone up stairs to prepare, when she made a discovery. that not only puzzled and astonished her, but finally furnished her with occupation for the entire season. As so much indirectly resulted from this invitation, which could not have occurred had it come a day later, we must explain how it came about, and see what bearing it has upon the much mooted question of doing evil that good may come.

It appears that as Mr. Ingram started up town that morning he had told his son, Douglas, a boy of ten, to harness Coaley to the open-top buggy, for bye-and-bye he might want to drive to the next village, and would take him along to see his cousin Clifford. Now, there were people who thought Douglas a small boy to manage a horse as he did; but, having done it for two years past, it seemed a matter of course in the family He would climb on the manger to arrange the head-stall, and walk on one of the shafts to put up the check-rein. This time, having got his turn-out ready, and his papa not having returned, he thought it would be nice to give his sisters, Imogene and dear little Gwen, and their visitor, Mary Mathewman, a short drive. But, there stood Arthur Hayden and his baby sister, Helen, the rector's children, living next door, and they must not be left behind. So, after much planning and many changes, they finally started off with Arthur and Helen back to back, Arthur's feet hanging out behind, and Mary and Douglas on either side of Helen, while Imogene and Gwen crouched on the bottom in front. Only six of them!

Finally the children were missed. Mamma was from home, and the Auntie became anxious. Vic., the colored girl, was inquired of, but she knew nothing of their whereabouts. And just here there must be a word said of this same Vic. When she first came into the family and was asked her full name, she answered,

"It's wrote in the bible Queen Victoria Buford." Then after the laugh which followed, she added, "I've got a sister that's named Niagara Falls. I call her Nigra for short; cept when she gets a tumble, then I calls her Nigra Falls!"

It soon appeared that she had some unexpected remark ready for every occasion. For instance, when she returned from a dressmaker's and announced that the sewing was not done, she was asked what she had said to the seamstress, and instantly replied:

"Didn't say nothin'; just smashed her over!" And not another word could be got out of her majesty. Although very fond of little Gwen, she was constantly teazing her, and one of her standing threats was to put her in the middle of a big cake and bake her. But the child seemed to understand her, and to enjoy listening to the new and astonishing destinies awaiting her.

On this day of the stolen drive it turned out that soon after Vic. was questioned she saw the missing children drive into the alley, and going out to help them unload, the following colloquy took place. First Vic. exclaimed:

"Well, you're a pretty-looking lot—disgrace to this family! where's all you youngsters been?"

"O, all around," answered Douglas; we've had the best time! we drove past

the court-house, and across to Water street, and out toward the depot."

"Yes," said Mary, "and he wanted to go clear to the depot, and I wouldn't let him, for a long train was standing on the track alongside the road we were driving on. And Arthur wanted to go too."

"It's a mighty good thing you didn't," said the queen, "don't you know that them two long rows of wheels would every one of 'em have rolled over you and cut you into mince meat! Oh!"

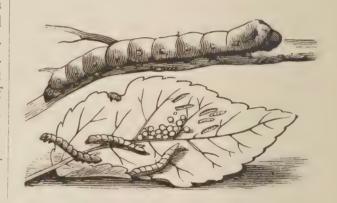
"And then Auntie would have been so sorry," said little Gwen.

"Don't you think it! we'd have gathered up all the pieces, and she'd have spanked every one of 'em! cou'se she would."

Meantime papa Ingram had returned, and then gone directly to Uncle Mason's to see if the children were not there; and then it occurred to him that, as Master Douglas was furnishing himself with a drive, he would take Nettie instead, and this was how the invitation came about. As she hurried up stairs, her mamma called to her that her winter cloak would be too heavy, and to go to the chest of summer clothing and get her spring wrap. On raising the lid she was shocked to see hundreds of little brown worms about half an inch long crawling in and out of every fold of every garment. She raised the edges of the lower ones with the tips of her fingers and it was the same below. In dismay she called her mother, but they could find no solution to the mystery until the serving-maid had brought a sheet upon which they laid the garments, one by one, to be carried down to the yard. While doing this, Mrs. Mason found a dirty-looking piece of paper in loose folds. which she daintily opened and held out for Nettie's inspection, asking, with much emphasis, what that meant. It was covered with masses of tiny globules gummed to the paper, each globule being punctured, and looking empty, as though something had but recently escaped. Nettie looked at it an instant, and then throwing up her hands, gave a prolonged exclamation, followed by such a torrent of chatter as her mother had never heard from her before.

"O, these are silk-worms! Betty don't mash one of them! Mamma don't you remember that when I came home from—Betty do be careful!—from Uncle Foster's

last fall, where I had been staying so long that I couldn't help learning a great deal about their silk-worms, don't you recollect that I brought home this paper of eggs, because Aunt Foster had been so amused with my interest, that she said she knew I would like to raise some myself, and she smuggled those into my basket when I left. You know you remember; don't you? You don't! Well, I was tired and got home late, and you said I'd not need my warm-weather wraps again until spring, and to put them in this chest. and it seems I must have put this wonderful sheet of paper here at the same time, and have never thought of it since. And now the eggs have hatched too soon. They ought to have been in the cool cellar until the Mulberry had leaved out. Now here they are on a rampage for something to eat—nearly starved already. O, dear! what can I do? Let me think,



there was something else they used to eat when short of food. It was Lettuce! Thank fortune we've plenty of that, and Betty, you run and get some this minute, and bring up a lot of old newspapers with you."

"My dear," said Mrs. Mason, "compose yourself, and just allow me to say a word or two. We have no arrangements and no spare room to devote to the cultivation of these things. Remember, your uncle had a building for that purpose, called a cocoonery. I trust you don't seriously think of trying to mature these creatures; it would be a great undertaking."

"O, I should just love it," answered Nettie. But she had already dropped into a seat, looking so limp and forlorn that her mamma could not refrain from laughing, and consented that she should try her hand at silk-culture if she could manage to keep her little, animated workshops in her own room, one side of which

could be devoted to their use, by crowding her own conveniences to the other side.

By this time Betty came in laden, and greatly disgusted with what she thought was arrant foolishness. "Perhaps," said she, "it's the dinner bell ye'll be wantin' next, to call thim varmints to dinner. With their crazy hids upon 'em it's beyant me to know how ye'll lure thim to their atein'."

"You'll see," rejoined Nettie, and commenced scattering the leaves over and under the garments and on the sheet around the pile, putting a parcel in the chest with the balance of the clothing. In a short time the leaves were covered by the little creatures, whose only business in life was to eat until they were ready to spin their silken winding-sheets.

Betty watched the operation and remarked: "It's fond of salad they be! Thai's no smill to it an' it bates me how they find it."

Nettie's uncle called for her as arranged, but she excused herself, to his great surprise, as she did not dare explain, lest he should laugh at her.

By this time the leaves were so covered with worms that they were lifted one at a time, by the stem and laid on the papers spread on the floor. Then fresh leaves were added, and in this way all the ugly, precious little things were secured.

Nettie entered into a compact with her brother, John, that he was to watch the Mulberry trees across the river, and keep her supplied with fresh leaves each morning after they were sufficiently matured; and then he should share equally with her the proceeds of the silk crop. He assisted, too, in arranging more ample accommodations, as the worms grew rapidly and constantly needed more space. He helped to make a long, screen-like shelf, that was supported at either end by old-fashioned candle-stands. Each morning the fresh leaves were laid over the worms, covering them entirely. To these the worms would attach themselves, and then were lifted up and the debris underneath removed. In one particular they were quite an example, for they always stayed at home and minded their own business. Except when moulting, or casting their skins, they ate incessantly. Before the summer was over, Mrs. Mason thought there was nothing in the house so curious to show their friends as Nettie's silk-worms. By-and-bye they began to show signs of maturity, by refusing to eat and showing a disposition to wander. Then limbs covered with large leaves were laid here and there, and propped against the wall, upon which the worms crawled; and gathering the leaves about them with many threads and cables for close protection, they spun and interwove their silken, golden threads within, until they were encompassed by a firm, ovalshaped cocoon. These were afterwards gathered, and those intended for market were thrown for a minute into boiling water, to destroy the life of the creature within, which otherwise would soon form a pair of wings and eat its way out, thus cutting into numberless bits the precious silken fibres. The moth when hatched soon lays its eggs and dies, the whole mission of its existence being then completed. John could not understand how the silk could ever be gotten off the firm balls without breaking. So Nettie explained that a number of them were thrown into a pan of warm water, to soften the glue which attaches every thread to its place, and then a small whisk broom is put in, and by a peculiar, circular movement it gathers up the different ends, and in that way they are unwound entirely. The loose, outside threads are kept separate, and form what is known as raw-silk, foulard silk, etc.

Nettie and John were very complacent over the result of their labors. Their cocoons measured nearly two pecks, and they got so good a price that they fancied that not only their color but their contents must be golden.

When Master Douglas saw the worms and heard their history, he said:

"Well, then, if I hadn't run off that morning, you wouldn't have got the invitation to take a drive; and wouldn't have rushed up stairs just then; and wouldn't have found the starving worms in time to save them; and I'd like to know if it wasn't the very thing for me to do that very morning? Who will answer the boy?—Aunt Marjorie.

RECOLLECTION.

Life's briars and roses—its gladness and gloom— Do they vanish together?—oh, no! The flow'rets we pluck, and condense their perfume, The weeds to the desert we throw.

-BOWRING.

A BOY'S FLOWER BASKET.

MR. VICK:—Last spring, while I was at work in my greenhouse, my little son, five years old, came in, bringing with him the neck part of a good-sized gourd, and asked me to give him some plants, so he could make a "swinging" basket of it. I first cut scallops around the rim, then attached cords and swung it up to the proper height. He then proceeded to fill with light, rich soil. I gave him some



plants of Dichorisandra for the center and some Othonna for drooping. His basket is now beautiful, and admired very much, being considered quite a novelty. This little boy being the only child in the family, amuses himself a good portion of the time among the flowers. He has some plants in pots, and never fails to inform visitors that those are his flowers.

I send a sketch of his basket, but the drawing is a very poor one and does not do it justice.—R. A. S., *Hood's Landing*, *Tenn*.

COCK ROBIN'S RELATIONS.

One morning a Sparrow,*
With bright, yellow coat,
Had finished his breakfast,
And cleared out his throat

as though he were going to sing. But not he. While eating his favorite food, the Canada Thistle seed,

A red-breasted Robin
Was watching near by,
And winking and bobbing
His head on the sly;

and suddenly flew down and told the Sparrow that he and his friends had concluded to have a change of diet, and should expect the Thistle seeds to be left for them hereafter. The Sparrow was in despair,

For he was third cousin
To that wicked Sparrow
Who murdered Cock Robin
With his bow and arrow;
And a family feud
A long time had been brewing—
Since the days when Cock Robin
Went billing and cooing.

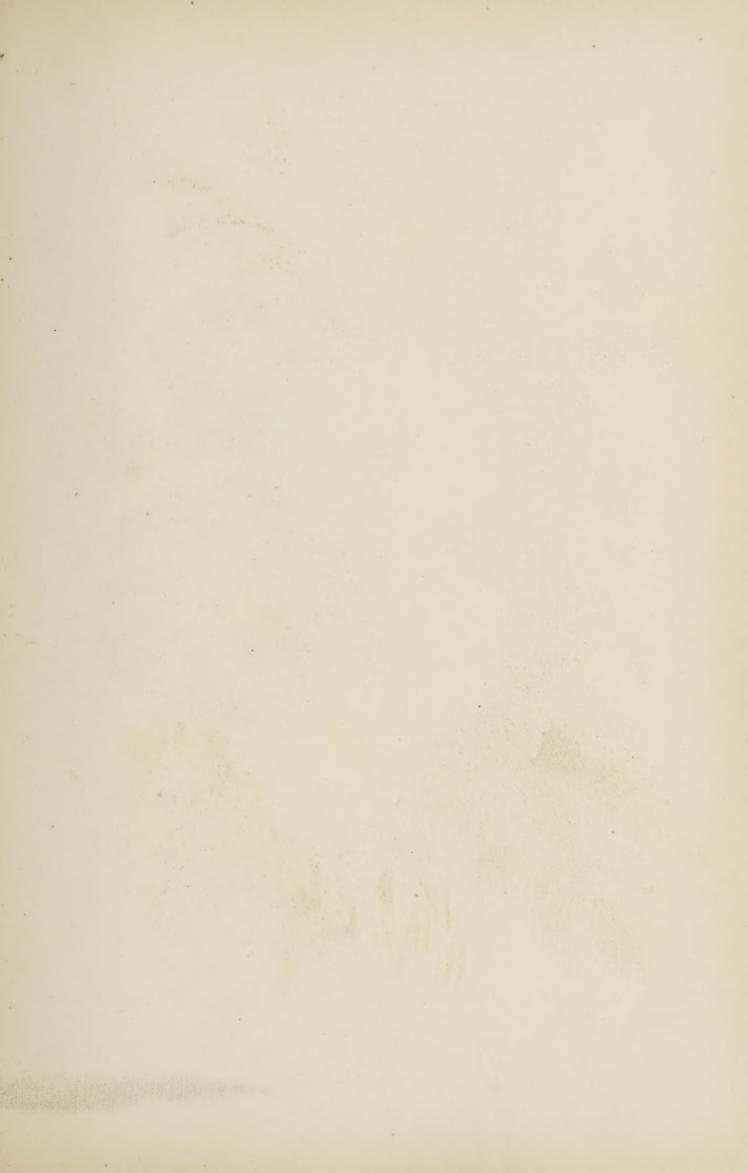
And so the Robins never missed an opportunity of persecuting the Sparrows. These now decided that a famine would soon be upon them unless they could devise some method of holding their rights. So they decided to practice archery until they became experts, and then wage war The Thistles upon the the Robins. loaned their spear-points for barbs to the arrows, and it must have been a bloody war indeed. Should any one want to know which party came off victorious, they can learn for themselves by observing which birds have possession of the Thistle-heads at meal time after the seeds ripen.—"PROXY."

*American Goldfinch, or Yellow Bird.

OAKS.

The largest Oak in England is, or was, the Cowthorpe Oak, near Wetherby, Yorkshire, whose ruins only now remain. The circumference at three feet from the ground, in 1876, was forty-eight feet. The height of the tree as a ruin was eighty-five feet. Its age has been estimated at eighteen hundred years. In 1829 the patriarch still bore acorns, and last year the ruin produced a few leaves.

Who of our young readers knows of an Oak as large as this one in this country? Which is the largest Oak in this country, and what kind is it? Will the boys and girls please report on this subject, giving measurements and descriptions. What county in the United States has growing in it the greatest number of different species of Oaks, and what are they? The local names of the different kinds can be given if the botanical names are not known, and if some kinds are unknown we will endeavor to identify them if specimens of the leaves and the acorns are sent.





PAINTED FOR VICK'S MONTHEY

CHINESE PRIMROSE.

Karle & Co. Rochester, N.Y.